# Gleanings in Bee Culture

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## Diary of a Real Amateur Beekeeper

**By Nellie E. Baune, Cottonwood, Idaho**

[Let us suppose the reader had never seen a swarm of bees or a bee hive. There are thousands of people who haven't. Well, this article is intended primarily for amateur beekeepers or those persons who have not yet actually begun keeping bees but are likely to do so in the near future.—Ed.]

**July 7.** My son, Bill, and I went to pick cherries today, and guess what we brought home with us? **A swarm of bees!**

They were hanging on a cherry limb, a great cluster of them— the first I ever saw! As we got out of the car and went toward the trees, I was thinking of the number of jars I expected to fill with the day's picking. Bill, of course, was talking of the pies he was going to eat. And there, right in front of us, hung that great cluster of bees!

We were afraid of them so we went around on the other side of the tree and began picking. I kept thinking about the bees, however. They stayed so quiet that we soon got over our fear—and began to get curious!

Finally I said, "I wish we had those bees at home. It would be so nice to have our own honey."

"Yes," Bill agreed with enthusiasm, "The honey would be all right, but I don't like bees."

"I've read some place that the queen is in the very center of the swarm and that they send out scouts to find a new home."

"I wish they'd hurry up and find it then so we could pick the cherries on the other side of this tree, too," Bill grumbled.

A great cluster of bees—the first I ever saw!

"Have you got your pocket knife with you?" I asked.

"Yes. Why?" Bill looked suspicious. "It isn't very sharp," he added.



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"Do you think it will cut those cherry limbs?"

"Oh yes, they are just seedlings."

"If we had something to put the bees in, I believe we could take them home," I remarked thoughtfully.

"Nothing doing! I'm not going to have anything to do with any bees," he retorted.

"Nice fresh honey would taste pretty good," I remarked casually. "I'm going to see if there is a box in the trunk of the car."

There was a dirty cardboard box, also an old grain sack. I had visions, for a minute, of putting them in the grain sack and tying it very tightly! I wasn't at all sure that they would stay in the box long enough to get it home, but I thought it was worth trying. In my mind I could see us going home with a long streamer of bees behind us in the air.

All this time I was struggling to remember what I had read about bees. I thought it had said in one article that swarming bees could be shaken off into a hive, but I was not at all sure.

I took the box back to the tree, and since I was so doubtful about dropping them into the box, I persuaded Bill to cut off the limbs and twigs on which they were clustered, and we laid them gently in the box. We put in the whole thing—bees, ripe cherries, twigs and branches! What a mess! However, we had the bees and they were remarkably quiet, I thought.

We didn't pick any more cherries. Into the back of the car went the box, with the grain sack laid over the top. Slowly and carefully we drove home.

I had put two clean dynamite boxes away. They weren't nailed at the corners, instead they were dovetailed into each other.

We put one down with the lid taken off. The other we took both top and bottom off. We set it on top of the first box and cleated the two together. After we had made a top out of the remaining boards we stood back and looked at our efforts with satisfaction.

Neither of us had ever been close to a hive. Pictures, and what little I could remember reading, were all we had to go by.

"How are the bees going to get out to make honey?" asked Bill, who, by this time, was getting interested.

"Oh my goodness!" I cried, "There's supposed to be an opening down at the bottom. I guess we could make one with a brace and bit." So Bill made a hole while I stood there thinking.

"You know," I said slowly, "I think they should have air holes on the sides." So Bill made two more holes up higher with brace and bit. These we covered with screen and tacked, for I had read somewhere that bees have enemies among the insects who like nothing better than to steal their honey.

**At last we were ready to put the bees in our new hive.** While Bill held the cardboard box up as close to the hive as he could get it, I removed the grain sack. A few bees came buzzing out, while we held our breath, but most of them clung quietly to the sides of the box. We were so surprised!

Oh yes, I forgot to say that I put a saucer of sugar and water in the hive with the vague idea that, somehow, it might induce the bees to remain!

Unable to think of anything else to do, we turned the cardboard box upside down on top of the hive, and in went cherries, leaves, branches, and bees! Bees in twos, and threes, and tens, and fifties! Such a mess you never saw.

We looked at each other doubtfully. We were weary, hungry, and slightly discouraged. After eating supper, we went back to look at them. They were still in that dirty old cardboard box! And there was that nice clean hive waiting for them. We were puzzled.

"We've got to do something to get them out of here," said Bill, "But what?"

"They smoke them sometimes, I think." I said doubtfully. So, getting some paper we tried smoking them. We surely regretted that idea deeply, in a matter of seconds, for they came pouring out of there. All I could think of was a furiously boiling pot. We hadn't been stung before, but they made up for lost time now. They buzzed around our heads. They got in our hair and stung us. They stung our hands. They got down our necks. The stupefied ones fell on the ground,

**The apiary has grown to at least three hives since the first swarm was captured. Hives are on stands up off the ground**

climbed our shoes and stung our ankles!

"Whee!" cried Bill, "I don't think that was a good idea." I ran for the "Denver Mud," and we put it on all the stings we could get at. The ones in our hair we just had to endure.

I got one on my cheek. It is still very painful as I write this.

We went back in a few minutes, after they had quieted down a little. We were not going to give up now after all the work we had put in on them.

We finally succeeded in tearing out the bottom of the box and giving it a thump. Just as Bill did that one stung him right close to his eye. He gave a start—the box slipped—and a huge cluster of bees fell to the ground instead of in our nice new hive!

"Now look what I did, but I couldn't help it!" exclaimed Bill, as he tenderly felt of his eye.

"If the queen isn't down there, I think they'll go in any way," I said comfortingly.

We were too tired and uncomfortable to do any more, so putting the cover on as far as we could for the bees on the edge, we went into the house and looked at each other. We were a pretty looking pair.

There was a two inch gap where we didn't get the lid over. It is still worrying me how we are going to get it over where it belongs.

I'm tired. This has been a full day. My cheek hurts. Poor Bill's eye! I'm afraid it is going to be pretty bad by morning. I'm going to bed and hope, just hope, that some day we'll get some honey.

**July 8.** I got up about one o'clock this morning and went out to look at the bees, hoping that I could put the lid clear over but they are still all over the top.

Bill's eye looks awful. My cheek is still swollen. We just look at each other and laugh.

The bees seem to be looking things over. I guess they are going to stay. At any rate they are still there yet tonight.

**July 9.** We went back after more cherries today. The bees that got away the other day were still there, clinging to a limb close by. Bill cut it off and put it into a clean box I brought along. We got practically all of them.

After picking more cherries we came home, and took the box with the bees out close to our hive and set it down on the ground.

I sat close by, to pit my cherries, and watch the bees. They seemed listless. They didn't do anything, so I put it on top of the hive. I watched closely, and after a while the bees let them go in the hive.

**July 10.** Was I ever surprised when I went out to look at the bees

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# Grooming Dance and Associated Activities of the Honey Bee Colony.

By Vern G. Milum, University of Illinois, Urbana

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Dr. V. G. Milum

It is not within the province of this paper to describe the construction of a glass-sided observation hive for a colony of honey bees, but such a structure is highly recommended as a unit of instruction for every high school biology classroom. An established colony of bees may serve as a constant source of interest with a very low cost of installation, if the hive is constructed in a manual training or farm shop course.

Observations of honey bee activities may range all the way from entrance guarding activities to the innermost secrets of colonial life. These include the attention given the royal queen, her own activities in laying the eggs from which the entire ever-changing population of the colony develops, and the activities of the female workers in maintaining cluster temperatures, in caring for the young, and in storing their food supplies.

Associated with the latter activities are certain well-known phenomena such as the pollen, nectar, and water dances. These dances are now considered to be a means of communication by which the incoming field bees pass on information to their fellow workers that sources of supply of pollen, nectar, and water are available.

In addition to these communication dances, other muscular exhibitions are designed principally for the creation of heat through the release of energy, either to warm the winter cluster to the highest temperature with the cluster of 75° to 85° F., or when brood rearing is in progress, to maintain an optimum temperature of near 93° F. in the brood rearing area. These heat producing activities consist of rapid breathing, vibration of the wings of individual workers for periods of several minutes, and at times a vigorous shaking of the body by individual bees within the cluster. There seems to be no doubt but that this last mentioned activity often has not been clearly differentiated from another hive activity on which we wish to report.

It has long been known by those who watch honey bees in observation hives that grooming or cleansing of the bodies of other bees is a service often rendered by one worker for a sister worker. Only recently, after sitting down to closely observe and possibly to describe this activity in detail, did we observe a more striking phenomenon, which to our knowledge has not been described previously. Much to our amazement, we soon noted that the grooming act is actually in response to a definite invitation by a worker apparently desirous of such attention.

Although a honey bee worker has many adapted structures on its legs for removing and transferring pollen and other materials to and from its various body parts, there seem to be certain areas which it cannot reach to perform its own cleansing operations. In particular, the quite hairy region immediately caudad of or behind the points of wing attach-

ment and extending back to the constriction between the thorax and abdomen is inaccessible to any leg structures of the individual bee, and thus the bee must depend on its sisters for grooming assistance.

Perhaps we can best describe the activities of the act if we assign some descriptive names to them. Because they are all females, possibly some beauty parlor terms would be more appropriate, but we can think of no better names than "customer" and "barber" respectively, for the "asking dancing bee" and her cooperating sister servant. As we have stated, the dance of the customer at first seems to be not unlike that of a bee that is apparently simply creating heat. In the latter case the individual worker bees may shake their bodies rapidly from side to side without attracting the attention of other workers except that sufficient room is usually allowed to avoid body contact. But the dance of a bee requiring or desiring the services of a barber seems to become more vigorous and is soon accompanied by attempts of her own to cleanse the antennae with the antennae cleaners of the front legs, of combing the hairs of the compound eyes with the pollen combs of the front legs, brushing the more posterior top and sides of the abdomen with the hind legs, but most vigorous of all, brushing the sides of the thorax with the second pair of legs.

It is at this point that the individual bee is somewhat in the predicament of the human with an itching back, particularly when the spot in question is between the points of the shoulder blades. In watching the frantic efforts of the customer bee it soon becomes apparent that she is not so constructed or provided with special leg structures for grooming portions of her own back, that is, the dorsal surface of the thorax and the anterior portion of the abdomen immediately behind the petiole, the narrowed constriction by which the abdomen is joined to the propodeum of the thorax.

The intervals of time required by the invitation dancers seem to vary considerably. In some cases a barber or grooming bee accepts the invitation or job almost immediately; in other cases there seems no response at all. We have been unable to determine whether a barbers' strike is in progress in such cases or whether it is just plain "Wednesday afternoon". In one case we observed a worker jumping over an intervening bee, somewhat in the manner of a guard bee challenging the entrance of an incoming field bee, in this case apparently distracted by the dancing bee, but the grooming job was not accepted.

At certain times no invitation dances or grooming acts are observable, under which conditions we suspect that other activities and duties are of more immediate importance, as recently when fresh pollen was being brought in and there were numerous pollen dances in progress with the attendant excitement. On the other hand, on one occasion when there was no field activity or brood rearing, as many as a dozen grooming acts were in progress on one side of an individual frame of the observation hive.

If a nearby worker accepts the invitation to grooming, she usually starts to work on the hairs near the constriction between the abdomen and the thorax, spends comparatively little time on this region, and then moves forward to the region on the thorax behind the attachment of the wings where the hairs are the most concentrated, spending as long as six and one quarter minutes in one grooming act. The actual work seems to consist of combing the hairs by pulling them through the mandibles, although it is possible that portions of some hairs may be actually broken off in the process. Only the mandibles or chewing mouthparts are involved, the lapping mouthparts remaining folded beneath the head. At intervals during the grooming act the barber backs up slightly and proceeds to clean her own mandibles, using her front legs in the process.

As soon as the grooming act is started, the customer bee ceases its dancing and thereafter gives complete cooperation by remaining motionless, even tilting the wings at a slight angle. In one instance two barbers were observed working on one customer. When one of the barbers backed up slightly to clean its mandibles, there was a slight confusion in positions and the second barber proceeded to groom the first barber. In this instance there was

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# Do Honey Bees Help Pollinate Baby Lima Beans?

**By Geo. H. Vansell and J. F. Reinhardt**

U. S. Department of Agriculture, Agricultural Research Administration, Bureau of Entomology and Plant Quarantine.
In cooperation with the University of California at Davis, Calif.

Large quantities of baby lima beans are produced in California. In 1946, 32 percent of the total bean production of 3½ million bags in the State consisted of baby limas. The yield of baby limas frequently exceeds 20 bags per acre.

Lima bean flowers, unlike flowers of other beans, secrete an abundance of nectar which is attractive to honey bees; it is therefore possible that seed set of this crop benefits from insect visitation. Natural crossing is reported by Magruder and Wester† in Maryland.

During the season of 1947 several varieties of baby lima beans were grown in replicated plots by the Agronomy Division of the University of California at Davis. Along with the agronomic studies, observations were made on nectar secretion, insect visitors, blossom dropping, and yield of beans in cages. A brief report on these observations is presented.

Henderson Bush, Wilbur, and Westan varieties of beans were grown in fields under irrigation. Each plot comprised four 100-foot rows of each variety spaced 30 inches apart. Cages made of 12-mesh wirecloth were used during blossoming time to exclude insect visitors from 5-foot sections of rows. The first blossoms appeared on Henderson Bush on June 25, but none were on the other two varieties at the time of caging on July 5. A small number of tiny pods were removed from the Henderson Bush beans when the cage was installed.

The only insect visitors noted on the blossoms were honey bees and an occasional Megachile bee. Several other kinds of hymenopterous insects worked the extrafloral nectaries, but they were not seen to visit the blossoms. These insects included numerous individuals representing four or five kinds of **Halictidae**, two kinds of **Sphecidae**, and a single species of **Polistes** wasps.

†Roy Magruder and R. E. Wester. Natural crossing in lima beans in Maryland. Amer. Soc. Hort. Sci. Proc. (1939) 37: 731-736. 1940

Honey bee visitors were common until July 1, when practically all colonies were moved from Davis. Previous to removal of the colonies, an average of one honey bee per yard of row was often present in the plots. No pollen collection was noted at any time. Similar populations were noted in lima bean fields in the Sutter basin during two observation periods in August. The number of honey bee visitors at Davis after July 10 was not more than one per 100 feet of row.

An individual blossom remained fresh for only one day. The rapid maturing of flowers and the large number that dropped after the day of blooming led to some detailed observations of flower histories. Over a three-week period, during which most of the crop was set, six flower stems of Westan with 80 nodes averaged 2.0 flowers per node, whereas a similar sample of Henderson Bush had 94 nodes with 2.26 flowers per node. After the main crop was set the percent of flowers which produced beans was estimated from a count of the nodes that had bloomed and the maturing bean pods on 50 random flower stems on each variety. In the calculation it was assumed that the flowering nodes produced an average of two flowers each. In the samples at Davis 22.0 percent of the Wilbur flowers produced beans, 16.4 percent of the Westan, and 4.95 of the Henderson Bush. The last variety is a profuse bloomer, and even with the low set it yielded a crop comparable to that produced by the other varieties. A sample of 50 blossom stems taken from a highly productive field of Wilbur beans near Yuba City, Calif., where bee colonies were constantly present, showed 34.4 percent set.

Honey bees visited the blossoms from early morning throughout the day. Colorless nectar was secreted freely in each blossom during the day that the petals unfolded. By the middle of the day the anthers had dehisced, and germinating pollen grains covered the stigmas inside the blossoms. Samples con-

taining about 12 to 15 microliters of nectar were collected in pipettes from many lots of five blossoms each. The sugar concentrations found in nectars from four varieties are shown in Table 1. All samples were collected between 11 a.m. and 3 p.m.

**Table 1.—Sugar concentrations of nectar collected from four varieties of lima beans July 21, 1947.**

| Variety of bean | Range | Average |
|---|---|---|
| Henderson Bush | 57.0-61.8 | 59.1 |
| Westan | 50.5-58.0 | 54.6 |
| Wilbur | 41.3-52.0 | 46.1 |
| Bayo | 39.9-45.2 | 41.8 |

Nectar from the Henderson Bush variety was consistently highest in sugar. The daily average sugar concentration found in the nectar during four days in July and August ranged from 56.7 to 59.1 percent.

Several samples of nectar were hand-collected from the commercially grown Wilbur variety at Meridian, Calif., on August 14. The average sugar concentration for these samples was 43.7 percent. This figure is within 2.4 percent of the concentration for the same variety at Davis.

The plants bloomed copiously for about one month, and less copiously for the remainder of the blooming period. The richness of lima bean nectar and the quantity secreted per blossom indicate that these plants, where grown in quantity, are sources of considerable surplus honey.

Many pods and beans formed on the three varieties, while grown in cages for the exclusion of sizable insects. From two cages the yield slightly exceeded that from uncaged plants, but on an average the caged plants gave a smaller yield in both number and weight of beans. The summary data from several samples of caged and uncaged plants (5-foot row samples) at Davis are presented in Table 2.

In four 5-foot-row samples of Wilbur beans from Meridian, Calif., the number of beans ranged from 1055 to 1430 per sample, averaged 1265, and the weight ranged from 337 to 461 grams.

The values for the caged plants are somewhat lower than those for the uncaged.

Baby limas are manifestly highly self-fertile. The decrease in the average yields within the cages could conceivably be due to shading of the cages rather than to lack of insect visitors. The data are too limited for statistical analysis. The situation in these tests with beans is quite different from that in tests with alfalfa where caging to exclude large insects resulted in almost complete failure in pod and seed formation.

**Table 2.—Yield of beans from caged and uncaged lima bean plants.**

| Variety | Number of samples | Number of beans per sample | | Dry weight of beans—grams | | Average number of beans per pod* |
|---|---|---|---|---|---|---|
| | | Range | Average | Range | Average | |
| Henderson Bush: | | | | | | |
| Caged | 1 | 761 | 761 | 308 | 308 | 1.95 |
| Uncaged | 3 | 855-911 | 880 | 380-403 | 393 | 2.31 |
| Wilbur: | | | | | | |
| Caged | 2 | 870-1011 | 940 | 297-342 | 319 | 2.20 |
| Uncaged | 3 | 613-1398 | 1106 | 235-539 | 412 | 2.47 |
| Westan: | | | | | | |
| Caged | 2 | 693-787 | 740 | 268-291 | 279 | 1.99 |
| Uncaged | 3 | 672-940 | 803 | 285-370 | 330 | 2.00 |

*Average for 1 sample of each variety.

## Still More About Ladino Clover

**By W. H. Ford, Indoe Falls, Vt.**

About five years ago I had a chance to put a part of my bees near Ladino. Every one told me bees would not work it. They will, and how.

After seeing your request for information I took pains to keep a partial record. I have 30 hives of bees. Supers were removed by August 15 and I extracted 2500 pounds and secured about 50 pounds of comb honey. Included in the 30 hives were six colonies developed from package bees and three hives that had produced only about 30 pounds each.

I had four hives in one lot. The four produced 510 pounds.

If I had the time to attend to the bees as I should the crop would be much larger as the way clover is handled we have at least three crops of blossoms a year from June up to killing frost.



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Otto Beer, New Paris, Ind.

Before leaving a hive he always examines the combs to see if the queen is at work.

# The Bee Business of Otto Beer

**By Vernon Reuter, Milford, Indiana**

One of the well-known beekeepers in northern Indiana is Otto Beer. When he first started keeping bees about 30 years ago he didn't have anyone to show him about them. He learned from experience and by reading. His first 29 hives were lost from foulbrood. As there were no package bees then, he had to buy new swarms wherever he could find them to start over again.

Otto now has about 500 hives located in three different counties, which produce honey by the ton each year for him.

Northern Indiana and lower Michigan is about the only place in the United States where spearmint honey is produced. Spearmint is grown for its oil on black muck soil. This honey, he says, is red in color and has a peculiar flavor that no other honey has. Otto has about 150 colonies that produce spearmint honey.

Otto prefers to take his honey off on a sunny day, which permits him to use carbolic acid covers on his hives. These covers are lined in the top with a heavy absorbent cloth or canvas. **Pure** carbolic acid of a white color is diluted with water in a bottle which has a sprinkler nozzle. This saves him much work in shaking bees off the combs.

He thinks carbolic acid is safe to use if it is done properly. The cloth is dampened but there is no drip. He does not believe it has any effect on the taste of the honey if used carefully.

Otto uses eight comb spacing in regular 10 frame **extracting** supers. He would not go back to nine comb spacing any more. In eight frame supers he uses 7 comb spacing.

The brood chambers are examined for foulbrood and the presence of a queen each time he works with the hives. If there is no foulbrood he marks the brood chamber "O.K. '48" with a blue crayon he carries in his pocket, meaning that the hive is free from foulbrood. If there is no queen he turns the brick on the lid on end meaning that the hive is queenless. The bricks seldom fall over. He may even transfer several combs of brood from another hive into it.

**Otto prefers the largest size of bee smoker.** He gathers red sumac that is dry or dries it at home on the roof top. For fuel it holds fire well and will not blaze up as shavings will. It can also be stored for future use.

Mr. Beer keeps about 25 to 50 colonies to produce comb honey. He keeps the queens clipped. One wing is clipped with a pair of small scissors. If bees swarm they must be put back into the hive. This year he got 30 cents wholesale per box of comb honey.

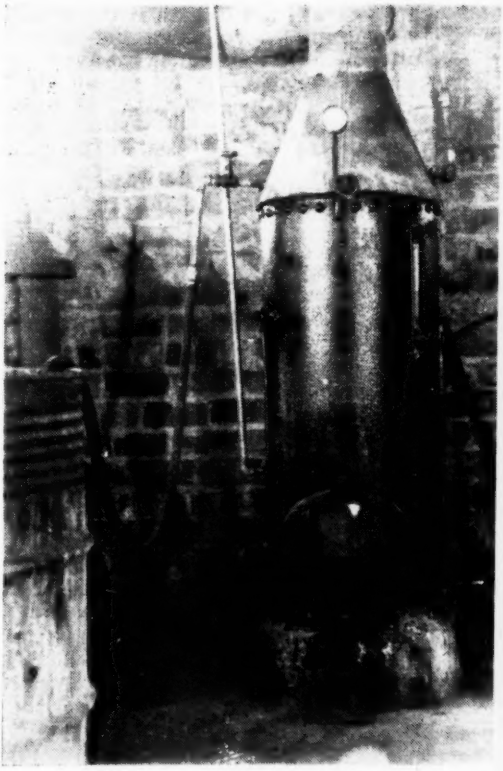
He doesn't remove his honey for extracting until the combs are nearly all capped over. The wax is worth more than the honey. Combs in good condition are used over again year after year.

**Cyanogas** is used every several weeks in the fall until freezing weather to fumigate and to kill all moths that may be flying around.

**Above: the honey house has a large doorway for convenient handling of the honey. Another large door opens into the basement on the other side of the building.**

**Upper right: Otto shows how he uncaps his honey with a steam knife.**

Cyanogas is a powerful chemical and should be used with extreme care. He begins to use it as soon as extracting combs are stored in the honey house. In the winter time **Paradow** (fine) is sprinkled over the combs to keep the moths away. Several handfuls may be put on each super. Cost is about 15 cents per pound in 100-pound lots.



**This steam furnace was obtained from a creamery. He uses steam to heat water for melting old wax combs, to heat the uncapping knife, and to sterilize containers.**

Only those hives in exposed locations are wrapped with tar paper for the winter. Two hives are set together. Tar paper is wrapped around and fastened with a slat. It is folded in on top and the cover set down over it. A place is cut out for the entrance.

**He likes to locate his hives in a clearing of an orchard.**

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# In Reply to "A Method of Wintering"

**By Merritt I. Taylor, Richmond, Virginia**

The evidence is in and the jury of discerning practical beekeepers will soon announce their findings. Langstroth has been on trial these many years. Beekeepers of his day and authorities who followed called him a radical because he advocated wintering bees in the winter sunshine, in thin dark hives, with top ventilation and without packing. The cry went up then and is being echoed now, "Such foolishness; wouldn't the bees freeze to death if there was no packing to conserve the heat?" "It's nonsense because convection currents carry off a lot of hot air." "Hot air" is just about what most arguments in favor of packing and the elimination of v e n t i l a t i o n amount to.

Why should it be "Folly to try to explain the factors pertaining to successful and unsuccessful wintering of bees"? On the contrary, it is easy to take the mystery out of wintering. Principles are the same in Florida, Virginia, New York, and Canada. Conditions vary, but principles do not. Mr. E. B. Wedmore in his recent book "The Ventilation of Bee Hives" gives us much technical information substantiating a number of my articles on wintering and top ventilation published during the past several years.

Circumstantial evidence is not proof in court and should not be accepted in beekeeping without facts to substantiate the conclusions. Mr. Rea says, in speaking about packing, "Bees are at all times surrounded by comparatively **dry warm** air." The fact is that there is little or no difference in the air temperature surrounding the cluster in a packed or in an unpacked hive. Furthermore, the air temperature is of minor importance and the bees do not attempt to maintain the air temperature in the hive. It is a mistake to consider air given off from the cluster is dry air; it is moist and contains water. Bees in cluster give off three things: carbon dioxide, heat, and water vapor. If they did not give off heat they would burn up. If they did not give off water vapor they would drown. Langstroth told us that "damp" was the chief cause of winter loss and proved it to his own satisfaction.

Another conclusion based on an incorrect premise is that in an "adequately packed hive" the packing should be "light, dry and thick enough **so that moisture will not condense inside the hive.** When preparing the colonies for packing, the inner cover is sealed down tight by the bees, and the escape hole is covered by a piece of section sealed down". The fact is, packing increases condensation instead of reducing it. In the bee hive, condensation is caused by the warm moisture-laden air coming in contact with the cold inner surface of the hive at which time the temperature of the moisture is **decreased** sufficiently so that condensation can occur. It is generally agreed among discerning beekeepers that packing retards the conduction of heat of the sun from the outside of the hive to the inside of the hive. Bees in unpacked hives enjoy more frequent flights and the periods during which condensation occur are shorter. During winter, frequent flights are an advantage because the bees can void water in the feces which otherwise would have to be got rid of by evaporation. Maintaining a dry relative humidity in the hive during winter and early spring will do more than any other thing to prevent dysentery-Nosema and spring dwindling.

Mr. Rea's article continues "When packed, the colony entrance consists of a notch in a piece of lath, about ⅜ inch deep and 4 inches long. Thus at top and bottom, there is a minimum **loss of heat by air currents".** The conservation of heat beekeepers base their approach to wintering in the belief that the cluster loses its heat by and through the air when as a matter of fact, heat lost by "convection currents" amount to about 30 percent of the total loss and whether it is a bottom entrance only, or a bottom and top entrance, make little difference, the heat lost by convection and the heat lost by radiation being entirely separate and distinct. To explain this, we might compare hive heating with home heating. A heating plant is not put in a home to warm the occupants. Aside from mechanical appliances, human beings are the warmest things in a home and they

generate their own heat. Heating plants, stoves, furnaces, etc., are installed to control the heat loss of the body, which also is the primary function of clothing. If human beings lose heat too fast they are cold, if too slow they are hot. Until recent years the comfort condition in homes has been accomplished by maintaining the air temperature (convection heating), but radiant Panel Heat is now in demand because it controls body comfort by offsetting the heat the body loses by radiation. The average sedentary human being generates 400 B.T.U. per hour, which has to be given up in order to be comfortable. Air currents through convection losses account for 100 B. T.U., breathing and skin evaporation account for another 100 B.T.U., but 200 B.T.U. or one half of all the heat the body gives up is by radiation to colder surfaces. Unfortunately this term "radiation" has been misused and misunderstood by many beekeeper authorities.

Furthermore, the air temperature in the hive is a minor consideration, the two most important conditions which affect bees in the cluster are: first, the degree of relative humidity in the hive, i.e. the amount of water in the air; and second, the temperature not of the air, but of the inside surface of the hive. If you have a hive open at the top, you lower the relative humidity by allowing the wet air to pass out of the hive. Condensation can be reduced by ventilation and by allowing the sun's heat to raise the inside surface temperature of the hive. Why waste a lot of time and money packing bees to make it harder for them to produce a crop of honey?

Mr. Rea states a general condition when he says, "We find so many results at variance with the results obtained by others who have tried the same methods of wintering." A careful study of various articles, reports, experiments, and books devoted to the subject of wintering clearly indicates that many important conditions were overlooked, misinterpreted, or incorrectly evaluated. Results of a radical experiment soon to be made public will throw more light on the practicability of the elimination of packing and the necessity of top ventilation.

# American Bee Breeders' Assn. Convention

**PLACE:** Biloxi on the Mississippi Gulf Coast.

**TIME:** November 17-20, 1948.

**HOTEL:** The Buena Vista.

Amid flowers and palms and balmy Gulf breezes, the American Bee Breeders' Association will stage their annual convention in the resort-like atmosphere of the beautiful Buena Vista in Biloxi on the famous Mississippi Coast. The southern semi-tropical setting will prove an enticement to northern bee breeders who would like a taste of "southern hospitality," and a record attendance is expected.

While the coast is not hot during November—the air is crisp and cool —delegates may bring their families along to enjoy the beach and outdoor activities for which the coast is noted, and thus combine an autumn vacation trip with three days of good fellowship and good ideas for improving business.

The officers of the association have planned a particularly interesting and profitable program. Business sessions will be held on the Deck high atop the Buena Vista which has a wonderful view of the Gulf. The hotel offers varied entertainment such as deep sea fishing trips, sailing, and musical entertainment nightly. The food is good, specializing in a variety of seafoods from Gulf waters.

A highlight of the convention will be the banquet in the beautiful Rose Room of the Buena Vista.

The convention will offer a wonderful opportunity for northern and southern bee breeders to meet and swap ideas which will be of mutual benefit in promoting business. It will also be a wonderful opportunity to catch some of those speckled trout and lemon fish so plentiful in Gulf waters!

So "c'mon down" to the Deep South for a wonderful time.



XUM

# Beekeeping in Oregon

**By John F. Erickson, President, Portland Beekeepers' Association**

According to Ezra Meeker's book "Seventy Years of Progress in Washington," the early immigrants to the Oregon Country did not find any bees west of the Rocky Mountains.

Charlie Stevens of Milwaukie, O. T., wrote a letter dated June 27, 1853, to his relatives in Illinois in which he stated that if they ever came to Oregon, "not to make any calculations in keeping bees for they cannot be raised here. The winters are not cold enough to keep the bees in and a little shower of rain will catch them and the whole swarm will be destroyed".

The first attempt to keep bees in Oregon was made by Dr. Wood of Polk County. This was about the year 1852. He was bringing them across the plains and the journey was just about completed when he lost them all by upsetting the wagon.

In 1854, John Davenport brought a hive of bees to Oregon. The bees arrived in good health but we are unable to find any records as to whether or not this colony perished.

In 1856, Ezra Meeker received at Steilacoom, Washington, four colonies of bees from William Buck of California. Mr. Meeker and Mr. Buck were partners on their way west, Buck going to California and Meeker to the Pacific Northwest. Shortly after this shipment Mr. Buck sent a few swarms to a Mr. Knowles then living in Oregon.

From these shipments has sprung the production of honey that it is today. In 1947, Oregon produced 1,904,000 pounds. The average yield was 33 pounds per colony, making the number of colonies about 57,700.

**The Willamette Valley** which is in the western part of Oregon is about 150 miles long with an average width of 50 miles. It is between the Cascade and Coast Mountains, is very productive, and has many beautiful farms. The estimated acreage of hairy vetch in this valley is about 48,000 acres. This is one of the best honey plants we have. It can be depended upon to produce unless we have rain when the honey flow is on. It is a mild honey and in great demand. The flow starts about June 15 and lasts about two weeks. There are other varieties of vetch, Willamette and Hungarian, but they are not as good honey producers as the hairy vetch.

John F. Erickson

After the vetch honey flow is over, that is about all we have unless the apiarist wishes to move into the fireweed, which is in the Coast and Cascade Mountains. This is a gamble as the fireweed produces a good flow about once in four years. In the Willamette Valley we have minor flows from dandelion, fruit blossoms, and sometimes good flows from clovers. We have several varieties of clover: crimson, red, white, Ladino, and alsike. We also get some honey from raspberries, loganberries, blackberries, and others.

**The Cascade Mountains divide the state** into two sections which are entirely different. The western part is wet and the eastern part dry. In most of the eastern part the land is not productive unless it can be irrigated. In this irrigated section alfalfa is one of the principle crops and many large beekeepers have their bees there.

In the Hood River and other regions where apples are grown many beekeepers move their bees to the orchards where the growers pay for the bees for pollination purposes.

There are several commercial beekeepers in Oregon making their

Mr. S. D. Williams with 26 of his colonies of bees in crimson clover near Canby, Oregon

livelihood from their bees. In the southern part of the state we have a producer of package bees and queens.

**The Oregon Beekeepers' Association has taken good care of the beekeepers' problems.** The Portland Beekeepers' Association and the Washington County Beekeepers' Association are branches of the State Association and all work together for the good of their fellow beekeepers. The Secretary of the Oregon Beekeepers' Association has been getting out about four bulletins a year which are very interesting and instructive. These bulletins alone are worth the price of being a member of the association which is $1.00 per year. The Association tries to interest young prospective apiarists. Our queen breeder in the southern part of the state gives each member who is interested in 4H work and bees a 3-pound package of bees with queen, free of charge.

**At the Oregon State College a course in beekeeping is taught** under a very able and practical instructor. They have their own apiary building and bees. The college also sends news letters to the beekeepers.

Bee supplies are easy to get. Here in Portland we have a plant that produces up to 600 hive bodies in a day. Their goods are sent into all the territory west of the Rocky Mountains.

We have very little AFB for which credit is due our efficient bee inspectors. The revenue for this work is from a tax on the apiarist, which is $1.00 for registration and 15 cents for each colony of bees.

Western Oregon is a wonderful place in which to live. The climate is not extreme in temperature, the scenery is beautiful, but, Mr. Beekeeper, don't crowd to come here. We have our problems the same as in other territories. Good apiary locations now are hard to find.

## GROOMING DANCE

(Continued from page 677)

no indication of any invitation having been extended. Many instances have been observed of two grooming acts in close contact with each other.

Further study may reveal more details and shed further light on the significance of these acts, but the observations to date indicate another way in which bees communicate with each other and manifest the cooperative spirit for which they have long been noted and praised for human exemplification.



XUM

# For Your Thanksgiving Dinner

**By Mrs. Benj. Nielsen**

**Luscious honey pumpkin pie is a heavenly finish for the Thanksgiving dinner.—Photo courtesy Kellogg Co., Battle Creek, Mich.**

Once again the time is drawing near when we must begin plans for the dinner which will celebrate our national day of thanksgiving. What bountiful harvests we have to give thanks for this year! Let's fill up the honey jar, roll up our sleeves, and get busy with the honey cookery. From meats through to dessert and steaming hot beverage, honey can play a delightful part.

If you are foregoing the traditional turkey—and many of us folks are—baked ham, ham or pork loaf honey treated are tasty substitutes. Try basting the ham with equal parts of honey and maraschino cherry juice. Brush the ham or pork loaf with a paste of apricot jam thinned with honey, about 30 minutes before the end of the cooking period.

Glaze the sweet potatoes with a mixture of honey, orange juice, and butter. Um! Sweeten the cranberry sauce with honey, cooking just a little longer than when sweetening with sugar, and use less water to start the berries cooking. Serve light honey rolls piping hot with plenty of butter and honey. Top it all off with a wedge of luscious honey pumpkin pie and steaming honey-sweetened coffee.

There is no lovelier centerpiece for the Thanksgiving table than a bowl, tray, or plate heaped with fall fruits and surrounded by bright autumn leaves. Guard with bright red or deep yellow apple candle holders (hollow out centers to take candles) if you like to eat by soft candle light. Wee pumpkins supporting tall orange tapers are most effective, too.

Should callers drop in during the afternoon or evening, you'll not be at a loss to know what to serve if you stir up a batch of luscious honey bars. And good eating to you!

**Honey Pumpkin Pie**

One unbaked bran pastry shell, 2 eggs, 1½ cups milk, 1½ cups pumpkin, ½ cup honey, ½ teaspoon salt, 1 teaspoon cinnamon and ½ teaspoon ginger.

Prepare bran pastry shell. Beat eggs slightly; add remaining ingredients and mix thoroughly. Pour into bran pastry shell. Bake in moderately hot oven, 425 degrees F., about 45 minutes. Yield: One 9-inch pie.

**Bran Pastry Shell**

Two tablespoons bran, ¾ cup sifted flour, ¼ teaspoon salt, ¼ cup shortening, and 2 tablespoons cold water (more or less).

Crush bran into fine crumbs; mix with flour and salt. Cut in shortening. Add water, a little at a time, mixing until dough is just moist enough to hold together. Roll out lightly on floured board to about one eight inch thickness. Fit into pie pan; trim edges.

**Honey Bars**

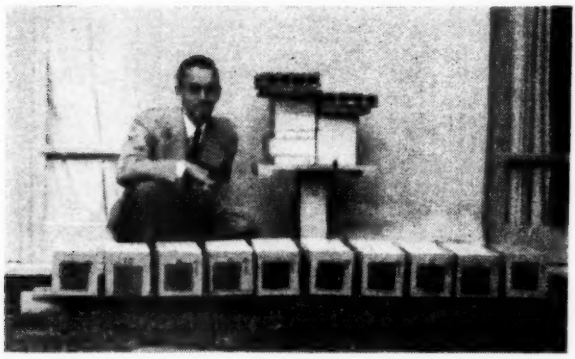
One cup honey, ½ cup thick, sweet cream, 1 tablespoon cocoa, 1 teaspoon vanilla, and 5 cups oven-popped rice cereal.

Cook honey, cream, and cocoa to hard ball stage, 254 degrees F., if you have a candy thermometer. Remove from heat and add vanilla. Pour over cereal which has been placed in greased bowl; mix well. Press mixture down into a greased 9 x 9 inch pan, cool, and cut into squares. Yield: 64 squares, 1¼ inches in diameter.

Aurora, Nebraska.

# Stingless Bees in the U. S.

**By Paulo Nogueira-Neto, Sao Paulo, Brazil**



**The author**

As a friend and admirer of the U. S., I had an idea of sending over to that country some stingless bees, which I have studied for several years. Mr. James Hambleton, chief of the Division of Bee Culture, Department of Agriculture, very kindly agreed with the project and gave me permission to carry it on.

In the first days of last April I sent to the U.S. ten colonies belonging to seven different stingless bees **(Melipona quadrifasciata, M. q. anthidioides, M. schencki picadensis, M. marginata, Trigona (Tetragona) jaty, T. (Nannotrigona) testaceicornis,** and **T. (Plebeia) mosquito).** They traveled by air from Sao Paulo in Southern Brazil, to their destination at Bee Culture Laboratory, University Station, Baton Rouge, Louisiana, where they are now under the competent keeping if Dr. Warren Whitcomb, Jr. All have arrived in good condition and, according to the last news I have had of them, are thriving exceedingly well.

Stingless bees are not well known, particularly outside tropical and sub-tropical areas of the world. But at any rate, they deserve a better study, at least in those regions, such as southern U.S., where they may reach economic importance.

The meliponins present some characteristics that make them very useful and interesting. They produce less honey than the common honey bee, although it may have a better flavor. On the other hand, they are very resistant (not subject to diseases), gentle (with exception of a few species) and their keeping in rational hives is cheap and easy. The rational hives referred to were invented by myself after having tried 18 different models. In fact, they are ideal bees for those who want them as pollinating agents. Several times I have seen them visiting flowers that were not sought by the common honey bee. Because of their gentle character, their keeping as a hobby is preferable to the **Apis melifera,** their maintenance at schools, zoos, and museums being also of interest, thus opening new fields to bee culture.

I think that stingless bees have very good chances of becoming acclimated in southern U.S. As a matter of fact, their normal migration into the States is only prevented by the desertic Mexican border and by the waters of the Florida straits. The experiment would have been easier in Florida, but in Baton Rouge they have the assistance of Dr. Whitcomb, which certainly means a lot to them. In southern Brazil they live in regions (Campos do Jordao S.P., Curitiba Pr., etc.) where, as in central Louisiana, the winter's mean temperature is of 9 degrees Centigrade. In such places there are severe frosts and even occasional snows, the thermometer going down sometimes to minus 8 degrees C. (22 degrees F.). Inasmuch as the colonies of stingless bees are generally built inside thick trunks, man-made hives should also give them good protection against cold. This is of capital importance for their survival in southern U.S.

**The present attempt to acclimate stingless bees** in the States is not the first one. Others have been made, although in very cold areas and with bees from warm places. This time the chances of success are far greater. In fact, I hope that such gentle and pretty insects may become a common feature in southern United States.



XUM

# A Long Range Bee Pasture Policy

**How We Found "The Valley of the Moon"**
**By Henry Freud, Taradeau, Var, France**

The most excellent article by Mr. Miller in the January, 1948, issue indicates clearly one of the biggest problems facing the beekeeping industry. I am referring to the bee pasture problem. I believe I can serve the cause by relating some of my own experiences in this respect.

In the late '20's I operated a fairly big number of stocks in the French "Le Gatinais" district. The honey sources of this region consist of sainfoin, clover, and luzerne, all forage plants providing fodder for the numerous cattle. The country is a highly developed agricultural district with wheat, beet roots, and forage plants grown on a three-shift plan. The forage plants (mainly sainfoin) represent therefore roughly one third of the plantations. Sainfoin offers a valuable honey source to the numerous beekeepers and fodder for the horses. But as time wore on farms became more and more mechanized and modern farm implements replaced the horses, the consequences being naturally a diminishing of sainfoin fields. Evidently there would have been still enough left for our bees but then came another blow. What has taken the farmer 8 to 10 days in the olden days, the cutting of sainfoin in full bloom, now took only a couple of days with modern machinery. The reader can imagine how sadly we looked over the fields of sainfoin, now ruthlessly cut in full bloom and yet rendered useless for our bees. Thousands and thousands of kilos of beautiful honey were hopelessly lost.

Then started the fashion to plant the so-called "bloomless" forage plant referred to in Mr. Miller's article. In a region where our friend Mr. Th. the wholesale honey dealer handled many millions of kilos of honey in one season, in 1927 he could hardly scrape together more than 10,000 kilos. The gigantic problem of the bee pasture stared into our face and forced us to act in order to survive and continue a profitable exploitation. So started the hunt for the "Valley of the Moon". I have been most fortunate to have with me on this memorable trip the Right Hon. Sir Ralph Paget, that lovable idealist, the greatest bee-lover I ever met, who advised and encouraged me

Some 200 miles further south we found the heather country called Sologne. Here for miles and miles stretches a district forming a carpet of the bonny heather, dear to the Scot heart. Unfortunately the honey (it is the Bell and not the Ling heather) is of inferior quality mixed with honeydew which is abundant in this district and can be used only for the pastry trade and such. But what a country it is for the migratory beekeeper to ensure late winter stores! I tried it out. We have carted a few hundred colonies from the Gatinais to the Sologne. We have taken a few thousand sections perfectly capped and finished with the characteristic snow-white capping of heather honey, then we took the bees back to the sainfoin country and took a bumper crop the following summer.

So on we went; the Sologne was not the "Valley of the Moon" yet. A charming country indeed, but we were looking for first class high grade honey for table use and not industrial honey.

Further south we found vast pine forests. The pine trees here are exploited by huge concerns for their resin, a sticky substance used for industrial purposes. Incidentally, this substance often very unfavorably influences the honey gathered in this district by the bees. These forests harbor further huge patches of bell heather. The country called "Les Landes" therefore did not offer what we were looking for. So we pushed towards the Spanish frontier via Narbonne and Perpignan.

One morning my friend came to me with a Baedecker in his hand where we read. "Narbonne originally founded by Rome's legions. Famed for its honey known since high antiquity."

Now imagine a sleepy old French town of modest appearance with a constant wind howling, the gusts of which threaten to knock you over every minute, where mosquitos pes-

ter you the whole night, and where you have difficulties in finding the famous Narbonne honey!

So we asked where this honey Baedecker talks about is produced. We are told to push further south and then some 25 miles from the town we found our "Valley of the Moon". There were along the Perpignan highway a range of hills some 300 to 600 meters high and above sea level literally covered with a thick carpet of rosemary bushes in full bloom. (It was in March!) On the way we saw a few hives, stopped, and looked. It was the most amazing sight I ever saw. The flight holes were black with inrushing bees laden with nectar. First I thought it was a swarm. Not at all. It was the rosemary honey flow in full swing. One could stand in front of the hive and bees did not look at one. They were so busy they had no time to waste or sting. With a clear sky of a deep hue of blue overhead, there were fierce gusts of wind, but the bees did not care. Honey was rolling in.

That settled it—we decided on the Narbonne district wherein to create our new exploitation. Nevertheless we thought it wise to see if there were other such wonderful districts. Further inland we found the region called "Les Corbieres" where rosemary also grows freely and where excellent honey is produced of somewhat similar quality as the Norbonne kind.

The reader may justly ask: Yes, but what about the long range policy for making bee pastures you promised to tell us? I will come to this presently.

We pushed on towards the Spanish frontier, crossed into Spain, a wonderful bee country too, but nothing like our "Valley of the Moon".

In one of my previous articles I described the rosemary belt which stretches away into Spain and Portugal and reaches across the sea to Malta and the Dalmatian coast. It wants dry loam soil, an altitude of 300 to 600 meters above sea level, needs no taking care of, and reaches a high age, yielding nectar year in and year out with undiminished intensity.

Once the magic of aromatic honey plants got a strong hold on us, we pushed further into the Basses Alpes to visit the famous lavender fields where lavender is cultivated for its perfume. The density of lavender honey does not equal that of rosemary. It is nevertheless a beautiful water-white honey of excellent fragrancy. It offers the migratory beekeepers the immense advantage that it blooms in June and July, that is, at a time when rosemary is already past nectar yielding. (In the Narbonne district rosemary yields nectar from the first week in March to the middle of May.)

A strange phenomenon is the fact that lavender growing naturally in the woods and fields rarely yields quantities of nectar. It is the cultivated kind which yields the most freely. This latter fact overthrows my conviction that natural-growing plants like rosemary or heather yield more nectar and better honey than cultivated flowers. One thing is certain—the poison problem does not exist either with rosemary or with lavender or heather. Unfortunately it is a calamity with fruit trees.

And now I come to the point of this article: Unless the beekeeper does not plan ahead, unless he takes good care of the future and the problem of bee pastures, assuring himself reliable perennial honey plants, he will find himself in a difficult situation. To my mind it is an absolute necessity to forge oneself the tools for the future.

Except in nurseries, neither rosemary, lavender, nor heather exists in the States. Yet, judging from the preceding, they (especially rosemary) are the finest honey spruce in existence, both for quantity and quality.

**Black Pepper Cookies**

1 cup sugar, 1½ cup honey, ½ cup molasses, 1½ cup shortening, ¾ cup sour milk, 2 eggs, 3 teaspoons soda, 1 teaspoon cinnamon, 1 teaspoon cloves, ½ teaspoon black pepper, ½ teaspoon salt, and 1 teaspoon vanilla. Flour enough for a soft dough. Bake in well greased pans. —Mrs. C. Snyder, Delaware, Ohio.



XUM

# 80 Years Among the Bees

By E. R. Root

**"To Pack or Not to Pack, that is the Question"**

After discussing all the phases of wintering as given in preceding articles under this head, the reader may be a little confused as to whether he should pack or not pack to be safe. I shall attempt to give something here to help him make his decision.

First, he should consult his state apiarist or bee inspector or an experienced beekeeper in his locality who has successfully wintered his bees. The author does not know exactly the conditions in which the reader lives but a local man ought to be able to give reliable information. Perhaps there is no one to consult.

I'll give here some climatic conditions which will enable him to decide independently which method to adopt, in whole or in part. In a general way we may say no packing will normally be required south of the Ohio River for the East; south of Kansas and Nebraska for the West. Nor will it be needed in the state of California. In all other territory, especially in northern states such as New York, Pennsylvania, Michigan, Minnesota, Iowa, North and South Dakota, better err on the safe side and pack.

For all other territory where winters are extremely cold—down to zero and below—packing will be required.

It may be said again that in the Rocky Mountain regions where it is very dry but cold, insulation may not be needed. In any event authorities should be consulted if available. Where cold is combined with moisture, packing is indicated.

These observations are based on extensive travel in every state but one. At all bee conventions for the past 65 years I have asked, "Do you pack your bees—if not, why not?"

Besides all this travel, up to within the past two years I have read all the correspondence which comes to this journal. I have consulted many European authorities. I wish to repeat in conclusion, consult local authority whether to pack or not, and particularly whether to use a single wrapping of paper around hives rather than to use moderate packing that may get wet and freeze.

There is an intermediate territory like part of Ohio, Indiana, Illinois, and Michigan where one will find a variation in practice. During average seasons no packing may be needed—again, a single wrapping of building paper is all that will be required. Again, one will find large numbers of beekeepers who do not pack at all. The argument on their part will be this: "If I pack nine years out of ten to catch the bad winter, it may reduce my profits in the bee business to zero, so I will take my chances".

On the other hand, if the territory is good, with an abundance of sweet clover, alfalfa, and fall pasturage, one will find the insulation of hives is considered essential.

**I repeat—consult your state bee inspector or apiarist if in doubt. You may get the address of your state bee inspector from the May issue of this magazine for any year. If in doubt, pack.**

"I thought you were kidding when you said 'Come up and see my bees sometime.'"

# Live and Learn

By Propolis Pete

Hello, folks. Just stopped in for a visit. Our Editor told me when I left that I was welcome at any time I was in the neighborhood, so here I am. I just can't stay away from the bees even though it can be only a "catch-as-catch-can" basis. We were thinking that maybe I could run in for a visit once during each of the four seasons to see how my beginner friends are making out.

There are not many beginners in the fall and winter. That is, very few start to keep bees during the slow season. But a lot of beginners are facing their first winter after a season either of satisfaction or despair. They should remember this:

**All systems of management have to be based on normal conditions,** that is, normal weather, normal blossoming of the flowers, normal conditions within the beehive, normal growth and decline, and so on. We won't try to define the word "normal" because the most scarce commodity in the world is "normalcy". Yet we cannot base any system on exceptions. After your first few seasons you will find that out for yourself.

Since we all like to brag about our successes and soft pedal our failures, beginners are often led astray by reports of the wonderful results that certain manipulations get for the sponsors of a system. A happy combination of the right circumstances during your first year or two can build up your ego with "beginner's luck". The reverse will be attributed with tolerance to the fact that you are just a dumb beginner. Time will average up your successes and failures, and if you pay attention to what you see and hear (with reservations) you will gradually work out a combination of manipulations that will fit your circumstances and location, and your knowledge, pleasure, and profit will gradually rise to a higher and higher plane.

Take the matter of wintering for an example. By reading the magazines and bee books, and talking things over with your beekeeping friends at the bee meetings, you will hear all kinds of management schemes. Some are good. Some are bad. Some may not have any bad effects, or good ones either. You are going to pick out the one that appeals to you the most, regardless of what the bees think of it. That isn't the right way to do it, but don't worry about that. You will have plenty of company. We all do. We all fall for half-baked ideas at times.

**Last winter was a tough one for all of us.** Beekeepers who had built up a system of management that meant no labor with little loss found that their way wasn't so hot. Others following the current system of letting the bees keep a lot of honey, and doing nothing else but provide windbreaks came out all right, but the pessimists who packed their hives with bees and honey, plus as much other protection as was necessary for their location came out best of all. The fact that a hot and dry summer and fall knocked out their honey crop could not be blamed on their wintering methods.

I am almost in that class. My winters are comparatively mild, and I have been leaving a lot of honey and bees with no protection other than a dense thicket on the north and west. A drouth of near record proportions killed off almost completely the goldenrod and aster that I depend on for wintering. So I didn't take any honey at all. I divided up the surplus from the producing hives. If I had the time I think that I would use a tarpaper wrap. I used to do this and I think that I will go back to it when the time comes for me to start my intensive beekeeping.

A fairly safe rule, until you know more about bees, is to **follow the practice of the successful beekeepers in your neighborhood,** bearing in mind any differences in their circumstances that may affect you. Then after you have begun to see the cause and effect side of beekeeping, you can start branching out on your own ideas. Of course that isn't as much fun as trying out wierd ideas, but that simply takes us back to the beginning—why are you keeping bees?

# Annotations

**By Prof. A. Z. Abushady**
Assoc. Mgr., International Business Associates, New York.

**Back - lot Beekeeping.** — I have had more than one occasion to pay tribute to the enterprise and efficiency of the Bronx B. K. A. which fosters back-lot beekeeping and beekeepers. Another Association of similar character is the North Jersey B. K. A. which issues regularly an interesting review, **The Bergen Beekeeper,** for the benefit and interest of its members. No doubt there are other equally fine organizations which are doing excellent service to the craft in more than one way, and not only in honey production through the multiplication of so many back-lot apiaries.

**The Scouts' Movement and Beekeeping.** — Such organizations as aforementioned would immeasurably add to their usefulness were they to link their activities with the Scout's Movement cr alternatively create special branches or clubs for young beekeepers. I believe beekeeping as a hobby, and similar beneficial hobbies such as horticulture, silkworm culture, etc., would help a good deal in fighting the unfortunately increasing delinquency of youngsters in this country. This character disease, to the best of my knowledge and experience many years ago (1912-1922), had no existence in Britain for instance, and has not such serious features and proportions in other countries. In the U.S.A it is one of the maladies of prosperity and unbounded freedom for which sound hobbies, I believe, would provide the right antidote. In England, for a different reason, the **Daily Mail** patronized the creation 30 years ago of the Young Farmers' Club Movement.

**Planting Bee Forage.**—Again true to its mission, this live organization, in the words of Mr. R. B. Willson (who gave an interesting address at its September meeting on his trip through South America, as outlined in the October number of **The Bergen Beekeeper),** is canvassing for planting bee forage. Its official review discloses that Mr. Willson's story of his trip through South America in his search for more honey, and his comments about the people, the kinds and locations of honey, and the grazing fields of Argentina were very interesting. He strongly urged "the bee associations to have a meeting with the park commissioners, road commissioners, and all other officials whose concern is landscaping, in order to enlist their services in planting trees, shrubs, and grasses that attract bees for their honey". Such a plea does not appeal to the bee farmer who thinks only in the terms of large acres of forage and of tons of honey; yet if properly responded to, its results are not likely to be despised even by the large producer.

**Nosema-infected Bees.** — Apropos of Mr. E. R. Root's interesting remarks (p. 650), I would like to point out that sometimes a suspicious sign, in otherwise normal bees in appearance, is the comparative enlargement of the abdomens of infected bees. This should lead the alert beekeeper to solicit a laboratory examination. The use of syrup medicated with" colosal" iodine is worth experimenting with in autumn for controlling the disease.

**Goldenrod.**—The tribute by our Editor to goldenrod (p. 636) will doubtless be appreciated by eastern beekeepers in particular who regard this honey plant as a genuine friend. It is still blooming (mid-October) in small patches in New York, giving its final yield of both honey and pollen before the advent of frost and seriously cold weather.

**Popularizing Honey.**—Mr. Thomas S. Davis is logical and timely with his appeal (p. 636). Many an article of food has received public attention and was eagerly sought after through organized advertising. There is no other royal course. A one precent levy on every honey producer is a cheap rate of insurance for a just price. It seems absurd indeed, through the neglect of beekeepers themselves, to hear of honey price depression in the midst of soaring inflation!

# Second Glances

By C. M. Isaacson

**"The beekeeper's best friend,"** says the article of the American Honey Institute on page 609. Perhaps more and more beekeepers are realizing how much truth this statement contains these days when honey must again be **sold**—not apportioned out as we blithely did for a short while. Certainly we have been getting a measure returned, heaped up and running over, for what we have given the Institute to spend for us. There are so many, many ways that their work has brought honey to the attention of the public. That professional advertising campaign certainly makes our dollars do double duty, and if we make full use of all the literature supplied us through various recipe booklets, etc., we can do likewise. Let's look at the actual results of the Institute's work, the public recognition given it—and support it.

**Package bees have a definite place** in a beekeeper's program, but except in especial cases it is better not to have to place entire reliance on them, but to winter over at least one's best colonies (page 614). When comparing respective productions, the increase possible from a well-wintered colony must also be considered—the production from the spring count will thus be greater than apparent at first glance—and package success depends so heavily on the quality of queens furnished, as well as arrival date, condition, etc. But just a word—it has definitely not been my experience that cellar wintered bees take more stores than outdoors—rather the reverse (and I winter outdoors now—for other reasons).

**A life of suffering.** That phrase in Dr. Phillips' tribute to Langstroth tells a story in itself (page 619). How often a real character is brought out by suffering, either for greatness or not. Langstroth's contributions to beekeeping that have brought him a measure of fame—the movable frame hive and the bringing into popularity of Italian bees—are not his true measure—rather it is the life of service of which this was simply a part.

**Low temperatures for honey cookery is good advice** (is that dubious praise, coming from a man. Mrs. Nielsen?). It does scorch quickly, but how good things made with it are when they turn out right! A word—for honey baked beans—have you tried preparing the beans the regular way and pouring honey, to taste, over them as they are served (hot, of course)?

**Wild sunflowers** seem to be especially valued by the bees for pollen, and it is true that they are often a very late source of this item (page 624). The whole family and connected species are of much value.

**Just in moving bees, that hoist** will be well worth its cost to any beekeeper with large holdings, and in taking off honey as well it will do away with many a tired back. More power to such improvements—we need to cut physical labor and improve efficiency as much as possible (page 626).

**That Celotex** - wooden packing case should be excellent for the beekeeper with not too many colonies. Where bees have to be moved often and with very large outfits there would be disadvantages. The top entrance to let moisture out is good.

**Starvation causes more winter loss** than any other one thing, says the Editor on page 631. He is right, as every observant beekeeper will agree. We know better, but we are apt to say, "Oh, they'll get by until spring anyway"—and all the honey they did have is lost along with the bees for want of that needed extra amount. Let's leave plenty and we'll have plenty to leave.

**Don't sell honey too cheaply,** says the editorial on page 636—it may not increase your volume of sales anyway. And it will also set in motion a circle that will drive the price further down. We have no bumper crop, so let's keep our heads 'till we work out of our "private depression".

**Cattle and bees do get along reasonably well toegther.** Many yards in this territory are deliberately placed in pastures because of less fire danger, as Mr. Newell mentions also (page 644). The yards are often fenced for winter (cattle will tear open tar paper packs) but gates are opened at unpacking time in spring. There very seldom is any trouble.



XUM

# A Talk to Beekeepers

By M. J. Deyell

### A Period of Quiescence

Beekeepers with some experience know that colonies of bees in the North are comparatively quiet during the months of November, December, and January. Most colonies are practically broodless during this time. Colonies with young, prolific queens may continue laying later into the fall than older queens and may start laying in the spring earlier than the older ones.

In this locality queens start laying a few eggs in early February. I remember some few years ago, visiting one of our apiaries in western Ohio on February 14, and opening two hives to examine the brood chambers. The weather was quite cold but the bees did not fly out on the snow as I feared they might. I found a small amount of brood in all stages in the three center combs. The largest area of brood was about the size and shape of my hand. This was in the center comb. The other patches of brood were somewhat smaller in the two adjacent combs. Young bees had just begun to emerge. This indicated that the queens in those colonies had started to lay the last week in January.

About 20 years ago I visited some beekeepers near New Orleans, La. It was January 1 when we opened some hives and found brood in three combs of each colony examined. Obviously, the period of quiescence is shorter in the South than it is in the North.

### Gambling

My mother told me many years ago that I should not gamble. Some beekeepers might be accused of gambling because they take a chance on their colonies having enough honey and pollen for winter and early spring stores without carefully examining brood chambers. Beekeepers should know definitely that each colony is well supplied with stores when the bees go into winter quarters. By rights, all colonies in the North should be ready for winter by November 1. However, if it seems necessary to add some combs of honey or sugar syrup early in November, this can be done. Colonies are not improved by manipulating them so late in the season.

The author at his desk

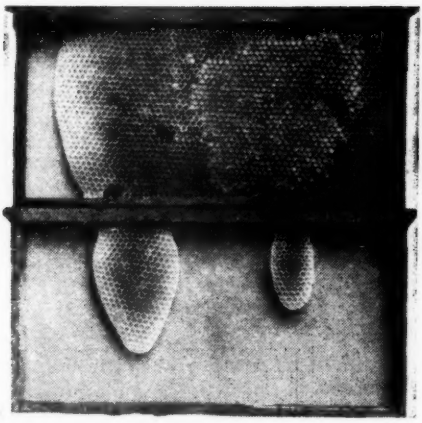
Just recently I learned of one beekeeper in this latitude who practices wintering in single - story brood chambers. He feeds thick warm syrup made of three parts sugar to one of water, in early November. During the days when we fed sugar syrup late in the season, before the food chamber came into use, we fed a syrup of two parts sugar and one of water. Obviously, the thinner the syrup the more work bees have to do in expelling the moisture of the syrup to reduce it to the consistency of honey. I would suppose that a syrup made up of two and a half parts sugar to one of water and fed warm could be handled by the bees late in the fall to a fairly good advantage. May I suggest that all of us stop gambling and know positively that every hive of bees is well supplied with winter and early spring bee food.

### We Soft Pedal Failures

Isn't it a fact that we usually hesitate to tell about our failures in beekeeping? On the other hand, we may boast about our successes. That seems to be human nature.

I wonder how many of us have actually told about how many colonies of bees we lost during the winter of 1947 and 1948. Personally, I have changed the topic of conversation when that matter came up. I have never actually told any one how many colonies I lost last winter, nor do I intend to.

Some unusual things happened last winter. For example, in this



**The bottom of this picture shows how bees started to build drone comb in an empty frame placed in a super between two drawn combs, during the honey flow. These two pieces of comb are eventually joined together. The upper part of the picture shows a straight comb almost filling the frame. In due time the comb will completely fill the frame, if the honey flow continues. These combs were taken from supers at the close of a fall honey flow in October, 1944.**

vicinity bees did not have a good cleansing flight from November until late March. About the first week in March the weather was warming up a bit and it seemed as though the clusters of bees were loosening somewhat in anticipation of a flight. All of a sudden the weather turned cold. On March 12 I looked at the thermometer on our north porch in the morning and it registered 5 degrees below zero. This prolonged spell of extremely cold weather was more than the bees could stand. They were not able to move on to fresh honey and consequently many colonies perished. When examining the clusters in the hives in which the bees died, I found them scattered over the combs in a disorganized fashion. This indicated, to me at least, that the cold spell caught the bees at a time when they were about to move on to fresh honey. If I am not mistaken, one of the beekeeping experts says that the bees in the center of the cluster during winter have enough honey in their sacs to last them about 16 days. If an extremely cold spell goes beyond 16 days and the cluster is not in direct contact with honey, as a result of the bees having used up all the honey in the combs on which they are clustered, it is probeble that such a colony will perish.

The best solution to this problem is to have very populous colonies, a superabundance of stores of good quality, and ample protection against the elements during the winter and early spring months.

**The Two-Queen Hives**

In the September Talk, on page 572, mention was made of a two-queen hive that we had made for the purpose of experimentation. Apparently a few beekeepers concluded that we recommend this hive. Such is not the case. We are simply trying it out. The idea is not new by any means. A beekeeper, Leroy Bell of California, has had such a hive for a number of years. His hive is not identical with that pictured on page 572 of the September issue of Gleanings, but the principle is the same.

We had a time getting colonies started properly in this two-queen hive. They were started from packages during April. We placed tight-fitting division boards over the perpendicular queen excluders at first when the packages were installed. Later on, when honey began to come in, we removed the division boards, permitting the bees from both colonies to intermingle. Unfortunately, one queen was superseded and she had to be replaced. About ten days ago I checked the hive to see how it was progressing. The queen in one brood chamber had disappeared but I believed there was a virgin queen in the hive about to lay, although I did not see her. This brood chamber has not been checked since.

There is very little surplus honey stored in the supers over the middle chamber. We will have to give this hive a further trial next season.

**A Simple Method of Making Increase**

I have tried different methods of making increase, or filling up empty hives, in an apiary. The method used this past season is so simple and satisfactory that I must tell you about it. As a matter of fact, I have used it successfully for a number of years. It is so simple that there is hardly anything to it.

I have three small apiaries out from Medina. I wanted to increase the size of the yards to bring the total number of colonies up to a certain number. On July 5, when the summer honey flow (what there was

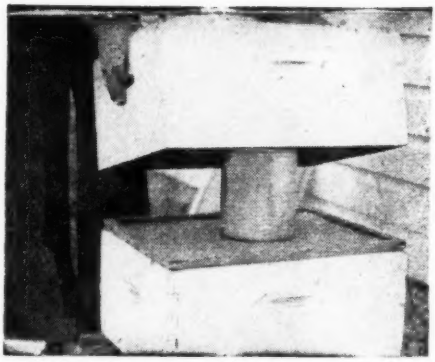
of it) was nearing its close, I lifted nine food chambers which contained bees, brood, honey, and pollen from their parent stands and placed them on hive stands nearby, then gave these food chambers hive covers. Prior to this manipulation the queen of each colony manipulated had access to the combs in two chambers, the upper one being called a food chamber. I did not know whether the queens were in the food chambers lifted aside or in the brood chambers left on the parent stands—nor did I care. I made sure that there was some brood in the chamber left on the parent stand.

In four days I examined the brood chambers set aside. In all but two of the nine brood chambers I found queen cells which indicated that queens were not present and that the bees were proceeding to rear queens. In two of the nine brood chambers set aside I found young laying queens, which indicated that the parent hives from which these brood chambers were lifted were queenless and would build queen cells to produce young queens.

Three weeks from the time the brood chambers were set aside I examined them and found laying queens. (I have found that it takes just three weeks for a colony made queenless to raise another queen.) Usually about 10 percent of the queens fail to mate, but last season I had 100 percent success. It was necessary to give these set-aside increase colonies each a super in late August and today they are practically filled with honey. In other words, the colonies are of normal size and have an ample amount of stores for winter. Now if that isn't one simple way to make increase, I would like to know of a simpler one. This plan would not work so well in a region where there is no fall honey flow.

But some may say that this method does not tend to improve the quality of stock. I grant as much. However, in my apiaries if a queen is no good or if her colony is not a producing one, I pinch the queen's head and introduce a queen of supposedly good quality.

Obviously it is essential to select the best producing colonies when using this method of making increase. At that time (the first week in July) I could see at a glance



**A feeder can having holes punctured in the cover. This is filled with syrup and inverted over the hole in the super cover. An extra hive body is put over it.**

which colonies had the most supers of honey. Some may say that queens reared by what we might call this emergency impulse are not likely to be good queens. I don't have space here to go into the details of why such queens may not be good. I have to be shown so I am going to keep a careful record of these increase colonies as compared with other colonies in the same yards. I'll let you know at the close of next season what happens.

Some of us make hard work of anything we attempt. If there is a simple method of accomplishing something, justified by results attained, I am for the simple method. As an example of how I could make the job of increasing my apiary difficult, I might have selected combs of brood from various colonies and placed them in hives intended for the increase, and perhaps I might have grafted cells from my best queen to give these increase make-up colonies. That would have taken a lot of time and incidentally might have resulted in robbing which is easily started at that season of the year.

By moving the entire food chamber, which at that time had brood in seven or eight combs, in addition to an ample amount of honey and pollen as well as bees, the increase hive had all that it needed. Some of the old bees would drift back to the parent hive but the young bees would remain on the new stand. Furthermore, the weather during early July in this latitude is warm and combs of brood with bees adhering moved to a new stand in the

(Continued on page 722)

## A Letter from an Ohio Apiary Inspector

I read with considerable interest the fine article entitled "The Cuyahoga County (Ohio) Clean-up" by Mr. E. R. Root on page 584 of September Gleanings.

Mr. George Siedel, our Deputy County Apiarist, has done an excellent job of cleaning up and controlling American Foulbrood in Cuyahoga County. He is to be commended. He has, without a doubt, one of the most difficult counties in Ohio in which to inspect. This is true because of the dense population in and around Cleveland and because of the large number of small apiaries in the area. There are approximately 900 beekeepers in the county.

In the second paragraph of the article, the 1948 figures on disease evidently should read "only 6 **apiaries** out of 149 **apiaries** were not clean". I am unable to find the basis for even these figures because Mr. Siedel had inspected up to July 1st, 333 apiaries and found only 6 unclean apiaries with a total of nine diseased colonies. As of August 1, he had inspected 474 apiaries containing 2290 colonies of bees and had found 11 infected apiaries with a total of 16 diseased colonies. This is 0.7% disease as compared with 4% disease if figured on the basis of 6 out of 149 colonies. The disease percentage in Cuyahoga County has been less than 4% for the last 13 years or since 1935.

Our records show that 2372 colonies were inspected in 1931 and that 1080 were infected with AFB. Figured on that basis, we get 45½%. In certain areas of the county almost all colonies were diseased at the time.

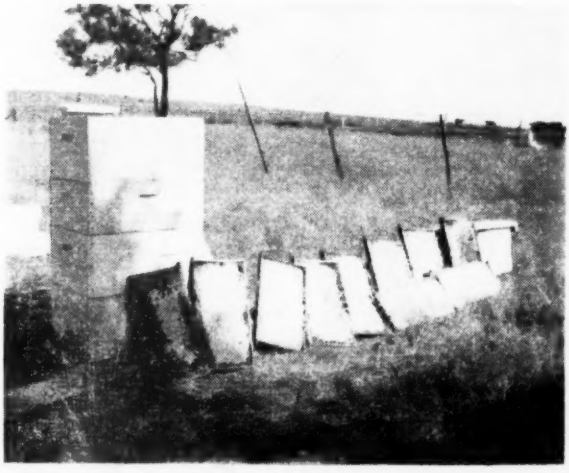
Last year (1947) the disease percentage was 1.14% and indications are that it will be even less this year.

It is of real interest to note that the number of apiaries in Cuyahoga County has more than doubled since 1931 and that the number of colonies of bees is just about double the 1931 figure.

Seventy of the 88 counties in Ohio participated in the inspection program in 1947. Of these 70 counties, 25 had 1% disease or less. Almost without exception, each of these low percentage counties had had adequate county funds and personnel to make almost a complete coverage of all bees in the county for the past several years. The State average for 1947 was 2.02%, the lowest in the history of the inspection service.

In striking contrast to the low disease percentage in many counties, we had one eastern Ohio county in which a county inspection program was inaugurated for the first time in 1947, where 29.3% of all inspected colonies were found to be diseased.

S. E. Bailey
Specialist in Charge
Apiculture.



**The accompanying picture shows ten combs which were filled between December 25, 1946, and January 18, 1947, on strawberry clover. The combs are all full depth. — J. R. Crawford, Macarthur, Victoria, Australia.**

## Meet Me in St. Louis December 14 and 15, in Hotel Statler

The stage is set and the curtain is ready to rise on the most significant meeting to be held by the beekeeping industry in recent years.

**It is the annual meeting of the organization that represents you nationally — the Federation** — and whose policies and programs are determined at these annual meetings.

You will want to be there and take part in the discussions concerning stabilized markets, advertising, increased use of honey in the home, increased use of honey in industry, floor prices, government loans, and a host of other subjects that have a bearing on our prosperity.

In addition to the old reliable speakers and the regular grist of Federation business there will be speakers from outside our industry, speakers who can help us find our proper place in the present complicated economy of the Nation. Mr. Roland W. Selman, Vice-President of the J. C. Patterson Company in Kansas City, Missouri, will discuss the use of honey in industry. The Patterson Company specializes in food research and Mr. Selman has information about the possible use of honey in industry, particularly in baking, that will be of interest to all beekeepers.

Mr. Gordon W. Crump of Milwaukee, Wisconsin, has spent many years helping the dairy people of Wisconsin solve their marketing problems. In many ways the problems of the dairy industry are very similar to those of the beekeeping industry and his experience qualifies him to give us sound and constructive service on marketing problems.

Calling for special and serious attention is the need for a broadening of the present organization so that it may speak and act for the entire industry, and the setting up of a schedule of membership fees that will permit each one to share the cost in proportion to the benefits he may expect.

There will be an up-to-the-minute report on the advertising campaign in Louisville, Kentucky.

All meetings will be under one roof, that of the Statler Hotel. The meetings on the 14th and 15th will be in the ballroom on the 16th floor. On the same floor and adjoining the meeting room will be the displays of beekeeping equipment and supplies. your opportunity to see the very latest developments.

Meetings of allied organizations and of the various committees of the Federation will be held on the 13th with meeting rooms to be posted on the bulletin board in the hotel lobby.

The concluding feature will be the banquet on the evening of the 15th with Maurice G. Dadant as toastmaster.

Room reservations should be made direct with Hotel Statler. Tell them you are attending the beekeepers' meeting, as a block of rooms have been set aside for that purpose. Do not expect, however, to find a room at Hotel Statler unless your reservation is made at least a week before the meeting.

**See you in St. Louis.** Program will appear in December Gleanings. —Glenn O. Jones, Secretary.

**Miss Phyllis Rasmusson,** a new member of the American Honey Institute staff, is a recent graduate of the University of Wisconsin. While attending the university Miss Rasmusson majored in home economics and journalism. Besides being president of the Women's Self Government Association on the campus she was affiliated with Phi Upsilon Omicron, Omicron Nu, Alpha Chi Omega, Castalia, Crucible, Mortar Board, and Phi Kappa Phi.

## $25.00 for a Slogan

In connection with the advertising campaign now being carried on by the Federation there is need for a short but pithy slogan that can be used in the ads being run in Louisville, Kentucky, and which it is hoped may be run in upwards of 50 of our leading market areas.

The campaign is based on the fact that honey is good food and should be on every table. It is confined to newspaper ads because that medium seems to reach the greatest number of people at the lowest cost. It aims to develop a market in heavily populated areas that will consume our surplus production regularly and at a fair price. It aims to make unnecessary the price cutting that starts in local areas and spreads so far and so fast that it drives down the price of honey in every town and hamlet in the land.

Can you think of a slogan? Something short. Something snappy. Something that will make the public honey conscious.

Send it, with your full name and address, to **Slogan Contest, National Federation of Beekeepers' Associations, Atlantic, Iowa.**

All entries will be typed on numbered cards and the winner will be chosen by a committee carefully selected for the purpose.

The winning slogan and the name of the winner of the contest will be announced at the annual Federation Banquet on December 15 at St. Louis.

All entries must reach the Federation office on or before December 1, 1948.

You can't lose, and you may win $25.00.

**The St. Louis - St. Louis County Beekeepers' Association** may be unique in some respects in that its membership is largely comprised of backlotters who are particularly interested in learning about management. The business of the organization is in the hands of the Executive Board consisting of President, Vice-President, Secretary-Treasurer, and seven Trustees. With this the procedure, seldom are business matters brought before open meeting. The reading of minutes of Executive Committee Meetings keeps the membership informed of the activities of the Executive Board, and regular meetings may thereby be devoted almost entirely to demonstrations and discussions, when outstanding authorities are not available for lectures.

Maintaining interest and bringing out members to attend meetings is the everlasting problem that confronts every organization. The Executive Board of the St. Louis - St. Louis County Beekeepers' Association, in part at least, has met this problem through planning interesting programs that attract beekeepers.

The August meeting was particularly well attended, and the reason expressed was an actual demonstration of extracting. Equipped with an electric uncapping knife, extractor, and other necessary adjuncts, Trustee Norman R. Mahoney turned the Circuit Court Room in the St.

(Continued on page 712)

Norman R. Mahoney is shown demonstrating uncapping at a meeting of St.-Louis-St. Louis County (Mo.) Beekeepers' Association.

# Asked and Answered

### Killing Bees with Cyanogas

Question.—I have one colony of bees in a box which I wish to dispose of. Could you advise me how to kill the bees without damaging the honey?—A. C. Benkelman, Va.

Answer.—In order to kill bees in a hive you should use Cyanogas. This can be obtained in drug stores in one half pound and one pound containers. This chemical comes in powder form. A tablespoon of the powder is placed on a piece of cardboard, which is inserted into the hive entrance. In less than a quarter of a minute all of the bees will be dead. The fumes from the gas travel upward. This powerful chemical should be handled with extreme care. Be sure to stand on the windward side of the hive while applying the gas. Be sure to read the directions on the can. It has been said on good authority that Cyanogas does not make honey in the combs unfit for human consumption. If the combs are aired thoroughly for some time after application of the chemical, they will be freed of the gas.

### What to Do With Uncapped Honey

Question.—What can I do with unripened fall honey which is in the supers and not capped. Whole combs of it are not capped at all.—Harry Braun, Ill.

Answer.—There is likely to be some uncapped honey in the supers at this season of the year. As a matter of fact, it is difficult, if not practically impossible, to get all of the combs capped over. Even though some of the cells of honey are not capped, this is no indication that the honey is not ripened. Quite often the honey flow may shut off suddenly and the bees may not have an opportunity to seal the honey combs completely. However, the honey in these unsealed combs is ripened, especially if the weather has been warm enough for the bees to drive the excess moisture from the nectar. Sometimes during the fall months wet weather prevails and this interferes with proper ripening of the honey by the bees. Then too, cool weather sometimes sets in directly after the late fall flow is over. This also interferes with the bees ripening the honey normally. Such honey should be heated after it is extracted. To do this, the containers of honey should be put in a wash boiler of water over a hot plate and the honey should be brought to 160 degrees F. and kept at that temperature for at least 30 minutes. It is an advantage to stir the honey while it is being heated. This heating of the honey drives off the excess moisture and does what the bees did not have a chance to do because of the abnormal weather. This heating of the honey also destroys any yeasts in the honey that might cause fermentation.

### Moving Colonies in Winter

Question: If one were to move to another part of the country during the winter, how would he go about moving his bees along with him? I may decide to move farther south early in 1949, and I have ten excellent colonies that I am planning to winter.—Rev. Ezra Meckel, Minn.

Answer.—Regarding your ten colonies of bees that may have to be moved before spring, it is considered somewhat inadvisable to molest bees during the cold winter months. If you could defer the moving of the bees until late March or early April this would be better for the bees. There are reports of bees having been successfully moved in the North. If the bees had a good cleansing flight following the time they were put on the new location, it would be beneficial. However, if the bees were moved during cold weather and the cold continued for a time after they were moved, they would likely suffer. If you could arrange to have the bees moved during late winter or early spring by truck, in the event that you move to another section of the country, your problem would then be solved.

### Do Not Put Bees in a Building

Question.—Now that winter is around the corner we will have to winter 11 hives of bees. We figured on putting them in a confined building. Now the question is: will we have to cover the windows so the bees don't fly up against the glass and die? Should we leave the door open so they can fly outside during the warmer days, or should we cover all the windows and doors and lock them up in a confined room?—Mike Zimomra, Ohio.

Answer.—It would be inadvisable to put your hives of bees in a building above the ground during the winter. The bees should be left outside, preferably in some spot reasonably well protected from the winter winds. The hive entrances should face south in order to have the advantage of the sun on bright days

during the winter. Each colony should be populous in bees and should have an ample amount of honey for winter stores. If you should put the bees inside of a building they would probably fly out of the hives and then find their way out of doors, but would not be able to get back into the building and into the hives. The colonies would be lost. A few colonies could be wintered in a dark cool cellar if the top of the cellar is below the frost line. The cellar should have a temperature of between 40 and 50 degrees F. Bees wintered out of doors in northern Ohio are likely to get winter cleansing flights periodically during the winter.

### A Queen Refuses to Lay

Question.—I introduced a queen on August 23. She was accepted but does not lay any eggs. What should I do? The colony is strong in bees.—F. E. Baugham, O.

Answer.—The queen that you introduced recently which is not laying eggs should really be laying by now if she is a normal queen. Occasionally a queen becomes egg bound. Such a queen has been mated and eggs are formed in her ovaries but she in incapable of laying eggs. Possibly you have such a queen. The only solution is to remove her and introduce another one. One would suppose that the bees in this hive would start to supersede this queen. This is usually what happens when a queen is abnormal.

### Correct Position of Food Chamber

Question.—I notice that all beekeepers say that food chambers should be on top. May I ask why?—G. A. Thomas, W. Va.

Answer.—It is generally conceded that the food chamber consisting of a shallow or deep super quite well filled with honey should be above, and what is commonly called the brood chamber which contains combs of brood in all stages should be below. When the brood chamber is on top the winter cluster of bees is likely to occur just below the honey, most of which is in the food chamber above. A part of the cluster will extend up into the food chamber and part of it will occupy the empty combs below. As the winter progresses and the bees slowly consume some of the honey in the combs, the cluster will move up slowly. The advantage in having plenty of honey in the combs above is that there is very little danger of the bees running short on stores. On the other hand, if the empty super is above and the filled super down below, the bees might take a notion to cluster in the combs above and if these combs do not contain any honey, the bees would starve during the winter especially if there are some protracted cold spells. If you change the position of the supers, putting the food chamber down below and the brood chamber above early enough in the fall, the bees will naturally rearrange the honey as they wish to have it and will make their own brood nest for winter. However, if you do this reversing too late in the fall after settled cool weather comes, the bees do not have a chance to arrange their brood nests for winter.

### Improving Temperament of Cross Colony

Question.—I have but one colony, which makes me a beekeeper, and my problem is this: my bees are dark and are very ill-tempered. I would like to requeen them, with the chances of obtaining a gentler strain (Italian) and thereby obtain a more agreeable colony as we have only a small lot and proximity is a big factor. How and when could I requeen with the greatest measure of success?—Irvin Voelker, Wisc.

Answer. — We suggest that you wait until next season when the bees begin to work on fruit bloom and dandelion in your locality, to requeen. You will find the old queen easier to remove if you will open the hive during the middle of the day when a large percentage of the bees are in the fields than you could if the hive were opened on a dull day when most of the bees are at home. Furthermore, bees are more easily handled during the day when they are flying well and filled with nectar. If you follow directions as given on the card accompanying the queen and if the new queen is not released too soon after she is put into the hive, she is likely to be accepted. However, if she is released too soon, the bees might kill her. This means that the cardboard covering the candy in the end of the cage should be left on instead of being removed, so that the bees cannot eat the candy out of the hole too soon in order to release the queen before the bees have a chance to become well acquainted with her. If the new queen is from a gentle strain of bees, the temper of the colony should improve when the old bees die off and the new bees appear in the hive.



XUM

Main Street, Greenville, N. C., looking south. The Poinsett Hotel is centrally located.

## Southern States Beekeepers Federation Held in Greenville, S. Car. on November 12 and 13.

Our genial friend E. S. (Ned) Prevost, Extension Specialist in Beekeeping, Clemson, S. C., program chairman, said in a recent letter that "this meeting is going to be the biggest Southern Conference that has been held in years". Ned knows, if anybody does, because he has been one of the moving spirits of the Conference since it began years ago. He says the whole city of Greenville is behind this meeting. Greenville, by the way, is a flourishing industrial city of 60,000 inhabitants, with payrolls amounting to over $45,000,000 for the years 1946-'47.

The meeting will be held in the Poinsett Hotel. Write this Hotel for room reservations. Come to Greenville and enjoy not only Southern hospitality but an outstanding array of national and state authorities on problems related to the beekeeping industry.

The Greenville Bee Club is making plans to have every person get the most out of this big southern meeting, and their hospitality will be long remembered by all visitors.

### Tentative Program
### November 12

**Beginning at 9:00 a.m.**

Call to Order by Chairman and Appointment of Committees.
A. D. Hiett—Our Beekeeping Fraternity
James I. Hambleton of Beltsville, Md.—Better Bees
Mrs. Harriett M. Grace of Madison, Wis., Director of American Honey Institute
C. J. Hudson, Jr.—New Gadgets
John Amos—State Apiarist of Tennessee
Prof. David Dunavan of Clemson, S. C.—Pollen and Pollenization in S. C.
J. O. Rowell—
William W. Wicht—American Bee Breeders' Association
Bob Dadant of Hamilton, Ill.—Marketing
W. A. Stephens, Extension Specialist of N. C.—Nosema
Jack Deyell, Gleanings in Bee Culture—The New Look at Our Industry
Supper
After Supper—Just Fun

### November 13

**Beginning at 9:00 a.m.**

Inspectors' Meeting
Glenn O. Jones—Sec-Treas. of National Federation
Leslie Lewis—
Business Session
Harold Clay of Washington, D. C.—Marketing
H. S. Foster—Apiary Inspector of Florida
L. M. Sparks—Effect of Insecticides on Bees

# Support Price for Honey

**By Alan I. Root**

At the call of the United States Department of Agriculture a meeting was held in Washington on September 27 and 28 to discuss reasons for the present marketing difficulties and methods of combating them. Some 30 men from the beekeeping and honey industry from almost as many geographical localities attended.

Briefly the discussion centered around such subjects as the estimated carry-over of the 1947 crop, the estimated production of the 1948 crop, methods of increasing honey consumption, and ways of impressing the farmer with a greater realization that pollination should pay more of the beekeeping expenses.

From the discussion of the amount of honey carried over from the 1947 crop it appeared that this total was somewhat less than had previously been supposed. In fact, the carry-over at eight or ten million pounds seemed to be no more than normal. The 1948 crop of honey was estimated to be somewhat less than that produced in 1947. In addition the larger packers reported that sales during the summer and early fall months were greater than normal for this period. These three conditions indicate the possibility that honey might move at more advantageous prices to the producers in the months ahead.

The discussion concerning payment for pollination services showed that some localities are farther advanced than others in working out a payment plan that is advantageous to both the beekeeper and the farmer. Greater education is necessary to sell the farmer on the advisability of bees for pollination and it was felt that more work could be done at the state and county level. In fact, the Chairman of the Ohio Production and Marketing Administration Committee, Dale C. Williams, has called a meeting in Columbus of Ohio producers to explore the possibility of working out a method of setting up practice payments for establishing colonies of bees to pollinate legumes and increase seed production. It is hoped that some plan may be developed so the County Extension Agents will be in a position to help both the farmer and the producer in this respect.

The Committee present at the Washington meeting went on record favoring some sort of support price or loan program that would insure the beekeeper a fair and reasonable rate for his labor and prevent sales of honey at prices far below the cost of production. A drafting committee was appointed and a proposal along this line was placed before Mr. R. E. Smith, Director of the Fruit and Vegetable Branch of the Production and Marketing Administration of the Department of Agriculture. The feeling of the committee after the conference was that a rather positive turn-down was received from Mr. Smith who expressed the conviction that the industry did not present adequate evidence that it had done enough in its own behalf to warrant government help. A brief of what the honey industry had done and planned to do along the line of self help was prepared and left with Mr. Smith.

Since the meeting, however, Mr. Smith has assured the industry representatives that the request of a loan or support program for honey will be given consideration in the near future and the industry will be advised promptly of the action taken in respect to it.

While some may have doubts as to the advisability of the government support program in general, it seems to be the feeling of many in the industry that with a large portion of the agricultural economy being supported by a subsidy program there is little choice for the honey industry but to ask for similar assistance at least on a temporary basis. Such a support program could bring about confidence and stability and prevent serious reduction in the number of bees at a time when increased numbers are needed for the pollination of more than 50 of our agricultural crops.

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# Editorials

**Annual National Meeting in St. Louis**

It is essential for the good of our industry that beekeepers from over the country get together at least once a year to talk over problems and to exchange ideas and opinions on matters pertaining to the beekeeping industry.

This year the convention is to be held in St. Louis, Mo., on December 13 and 14 at Hotel Statler. An excellent program is in the making. Let's make this the best annual meeting ever held.

**Honey Utilization Committee Formed Recently**

One brief year after the end of the sugar shortage our industry is confronted with the hard fact that we once again have a serious marketing problem. The housewife who bought honey eagerly two years ago at unprecedented prices, is an indifferent buyer today at less than half those prices.

The sluggishness in the market is accentuated because now we can feel the disuse of honey generated in industry, when it could not be readily obtained in recent years and substitutes were employed that are still in the formulas.

This condition has resulted in much honey being sold at well below the cost of production which is anything but conducive to the keeping of an abundance of honey bees for pollination without which our American agriculture cannot survive. Nor, if we properly interpret the statements attributed to government officials at the Washington conference of September 27th and 28th last, may our industry expect much more, if any, help in the way of price support in any form from Uncle Sam. (See page 703.)

Under such circumstances it is encouraging to realize that we have aggressive leadership in our National Federation of Beekeepers' Associations whose President, Mr. Woodrow Miller, aware of this problem, is striving to build stronger markets. Toward this end he has created a new national committee to be known as the **Honey Utilization Committee,** that will have as its principal purpose the increased use of honey in industry and institutions.

This committee, headed by R. B. Willson of New York, plans to take the story of honey directly to industry and the professions, just as the Honey Plants and Pollination Committee has taken their subject matter directly to agriculture and the agricultural scientist. The Committee plans to go to and get on the programs of the local, regional, and wherever possible, the National Meetings of the bakers and candy makers, the doctors and dietitians, the pediatricians and the institutional managers. When they hear the story of the indispensibility of the honey bee, they will remember to use honey always.

Properly presented information of this kind broadly disseminated could change a slow market at slow prices to a good market at prices fair to all. The program is ambitious and deserving of complete support. We wish them well.

**Fields Look Green Far Away**

Some beekeepers imagine that nectar is much more plentiful elsewhere than in their immediate locality. In some instances commercial beekeepers have "pulled up stakes" and moved to another state only to find beekeeping conditions less favorable than the location from which they moved.

A few localities are overstocked with bees—at least, beekeepers in such localities seem to think so. This situation usually occurs as a result or some thrifty efficient beekeeper in the locality making good. Other beekeepers learning about the success of this man naturally think that his territory is much better than the territory where they live. Migratory beekeepers may crowd in so close to a successful commercial beekeeper that the chances of all beekeepers securing maximum yields are reduced measurably and this results in an unpleasant situation for all concerned.

Good crops secured by the efficient beekeeper are usually due to intelligent apiary management and a thorough knowledge of the factors that govern success in beekeeping. If beekeepers who moved in close to the successful beekeeper had remained at home and had taken time to discover and apply the essential



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factors necessary in apiary management for securing a maximum crop in most cases, they too would have secured a good crop.

It behoves beekeepers to investigate thoroughly beekeeping locations within easy driving distance of their home apiaries. Some perfectly good locations for beekeeping are being overlooked.

**Letting Bees Alone in Late Fall** It has been said that man is the bees' worst enemy. There appears to be some truth in this statement. For thousands of years honey bees have lived and increased their kind on this planet. Honey bees do actually get on quite well in their natural habitats when they are left strictly alone. When man decides to remove a swarm of bees from a bee tree and put it into a modern movable-frame hive, he may or may not be successful in having that swarm continue life in the new environment and to gather enough honey and pollen for food requirements throughout the year, not to mention surplus honey which rightly belongs to the owner of the bees.

Obviously, the degree of success attained by the owner of the bees depends on his knowledge of bee behaviour and the principles that govern success.

It has been said also that more bees die of starvation during the winter and early spring months than from any other single cause. This loss is due to the owner of the bees not leaving enough honey and pollen in the hive for the bees during the season of the year when nectar and pollen are not available.

During the war years when honey brought a high price there was the temptation to rob bees too closely in order to secure more honey to sell. Many beekeepers gave way to this temptation and consequently lost their bees during the winter. At present, when the demand for honey is not so strong, beekeepers should leave more honey for winter stores.

If owners of bees would leave an adequate amount of honey and pollen with each colony every fall—between 50 and 60 pounds as the minimum—and would winter nothing but populous colonies, furnishing adequate protection from the elements, these beekeepers would have colonies of bees in the spring, barring unusually adverse weather conditions.

Some beekeepers make a practice of exchanging combs in brood chambers during the late fall months. When this is done the arrangement that the bees have of forming their winter brood nest is interfered with and may result in the loss of colonies.

One reason why some back-lot beekeepers who never look at their bees during the late summer and fall months, after the comb honey section super is removed, have comparatively few losses is that these colonies have time during the fall months to stock the brood chamber with honey and pollen and to arrange the brood nest to their liking. We will have to admit that the bees know more about fixing up their brood nest for winter than the owner of the bees does.

During November it is a poor policy to manipulate colonies of bees to remove combs unless it is necessary to provide food. Bees should be left strictly alone during late fall months, assuming that each colony is well provided with stores and is of adequate strength to go into winter quarters.

**More Beginner Beekeepers Needed** It has been said that approximately 90% of the nectar secreted goes to waste annually because of the lack of bees to gather it. There is a lack of bees to perform the pollination service necessary to insure maximum crops of legumes, fruits, and vegetables.

An attempt was made during the past two years to increase the number of hives of bees in the United States. Because of unfavorable weather conditions throughout the country, the goals set were not attained.

According to the report by the Bureau of Agricultural Economics, Washington, D. C., as of August 10, 1948, the estimated number of colonies in the United States is 5,718,000, whereas the estimated number of colonies in 1947 was 5,916,000.

Not only is it imperative that commercial honey producers make up their colony losses, but it is also essential that back-lot beginner beekeepers increase their holdings, and that more people start to keep bees.

We should encourage beginner beekeepers throughout the country in their effort to keep bees success-



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fully and produce crops of honey. Our industry needs more beginner beekeepers to take advantage of the enormous amount of nectar that goes to waste annually, as well as to render service in pollinating farm crops.

Many beekeepers live in towns and villages. Bees are badly needed in such areas for pollinating fruits and vegetables.

Some of the older beekeepers who have rendered invaluable service to our industry are passing off the stage and younger ones are needed to take their places.

Beekeeping programs — county, state, and national—should always include speakers capable of dealing with problems of the beginner beekeepers.

Experienced or veteran beekeepers should remember that they were once beginners. Some of our most successful commercial beekeepers started in with a few colonies and gradually built up their number of colonies until they are now classed as commercial beekeepers.

Commercial honey producers will lose nothing by helping beginners. As a matter of fact, these producers are benefitted because the beginners in their enthusiasm, contact many people and thus develop a wide consumer interest in and a demand for honey.

* * * * *

**Enzymes in Honey** The average reader, not being a chemist or a dietitian, may fail to understand the function of enzymes in honey, so an explanation should be made.

The human stomach has one set of enzymes, saliva another set, various parts of the small intestine other sets, and their presence only starts the flow of enzyme action. There are enzymes in the liver, the kidneys, the blood, the muscles, and everywhere that living cells exist, and each one or each set has special functions.

The enzyme invertase, found both in the body of the bee and in honey, is not all used up in the ripening of the honey when first stored. This enzyme can and does continue to split any sucrose left not yet inverted into dextrose and levulose, or until the honey is fully ripe; but this enzyme, invertase, can not continue to work if the honey is overheated to a point that would kill the action of the invertase and right here it should be noted that too high a temperature on unripe honey will destroy the action of both the invertase and the diastase. A word of caution should be entered at this point: An unripe or thin honey of less than 11 pounds and 12 ounces to the gallon should never be sent to market, much less to Europe. To stop or prevent fermentation it is the usual practice to heat the honey to kill the yeasts. The very act of heating, if carried too far, would prevent further inversion. If shipped to Europe, an overheated honey altho fully ripe, would probably be rejected because the action of the diastase had been destroyed.

This phase of the matter is covered by Dr. Geo. H. Vansell of the U. S. Bee Culture Laboratory, Davis, California, in the American Bee Journal for 1929, page 293.

Dr. Vansell says:

All beekeepers are probably familiar with the fact that the German Government at one time placed an embargo on honeys that failed to show, upon examination, a certain diastase content. Diastase is the name applied to enzymes or ferments that have the ability to break down starch into sugars. Inasmuch as honey contains very little starch and the amount of diastase in even the most heavily diastase-charged honeys is negligible in comparison with a small drop of human saliva, it seems certain that the objection to honey poor in diastase can not be based on the dietetic value of the diastase. Despite the fact that our investigations have shown some comb honeys practically devoid of diastase activity, German authorities consider any more honey with a low or slow diastase content to be overheated or adulterated

Some work done by the U. S. Bureau of Chemistry and Soils, Carbohydrate Division, by R. E. Lothrop, shows conclusively that there are some pure honeys in the United States that have little or no diastase even though they have never been heated. It therefore follows that the presence or absence or even a deficiency of diastase in any given honey is not proof of the purity of such honey. While it may be admitted that this factor may suggest that a honey has been overheated, the fact remains that very little of American honeys are ever heated before they leave the producer in bulk. With the exception of tupelo and sage, the honeys are allowed to granulate before they are shipped in bulk because there is less chance of leakage.

# From North, East, West and South

**SOUTHERN CALIFORNIA, Oct. 1**

**Weather:** We hear about the probability of southern California getting rain this month. November is often looked upon as a month when we can expect some rain.

**Market:** The market for honey is not strong but a price for white honey of about ten cents and light amber about seven cents is about the going price.

**Crop:** Some beekeepers were more fortunate than others. A few secured 60 and even 70 pounds from the orange. This was possible where the colonies were in extra fine shape for the honey flow, gathered all the honey possible, and then were extracted very closely and moved to the cotton, alfalfa, or thistle up North for a fill-up. In some cases they secured from 20 to 40 pounds of surplus from these sources. From what we have heard we would say the alfalfa did a little, the cotton some better, and the thistle best of the three. A few beekeepers cut their colonies to one story, moved to the North and put on empty supers, thus securing a well-filled brood nest and still having room for any surplus there might be. Some apiaries will be left on the northern locations until early spring, moving back in time for the orange. Others will be moved as the beekeeper finds time.

**Miscellaneous:** We are pleased to learn that farmers are showing a very friendly attitude toward beekeepers looking for locations. This spirit must be cultivated and encouraged in every way possible. As most readers know, the great majority of bees are now moved without closing hive entrances. Accidents will happen and when a tire goes flat or for other reasons a load of bees is delayed on the highway—how do you think the public likes it? We even hear of bees being loaded on a truck in the middle of the afternoon and away they go. What are the bees out in the field going to do when they return to the location? There is still a lot to be learned about moving bees successfully.

From San Francisco south to the Mexican border the wish and hope is that we get a big rainfall this coming winter. The country is very dry. Men with wells out of which they pump water for irrigation and domestic uses say that the water level is getting lower and lower. Reservoirs are at a low level and nothing but rainfall will refill them.

We do not hear of any apiaries being sold but the demand for bees is not nearly what it was two or three years ago. As for price, it pretty well follows the price of honey. An article is always more in demand when the price is high than when the price is low.—L. L. Andrews, Corona, Calif.

**NORTHERN CALIFORNIA, Oct. 3**

**The weather** during this past month has been generally favorable for bee flight with the exception of approximately a week of comfortably cool weather, during which time the bees gathered little surplus. This was followed by a period of warm days in which most of the colonies gathered their final surplus of the season. A general rain fell over most of northern California, 0.35 inches being recorded at Davis, with snow in the higher mountains.

**Plant Conditions:** The yellow star thistle gave an average yield in the most favored places but dried up rapidly in the grain fields and pasture areas. Tarweed, spikeweed, and blue curl yielded little surplus this year. Liveoak and other honeydew producing sources have failed to yield their usual amounts. As a result, many colonies will go into winter rather light in stores. The eucalipti in the Sacramento Valley and the manzanitas in the foothills and mountains are heavily budded and, with favorable weather, can be expected to give an early source of nectar. By moving from the lower to the higher elevations, the manza-



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nita can be made a source of surplus over a comparatively long period.

**Condition of Colonies:** Profiting by the experience of this past spring season, many of the package bee producers are leaving more honey than usual on their colonies, when it is there to leave. Thousands of three and four frame nuclei will be carried over also. Since production was rather spotted this summer, the condition of colonies is likewise variable. There has been no attempt to increase the number of colonies beyond the point of making up for natural losses.

**The Honey Crop:** Last month I predicted that the honey crop in California would be below average and nothing I have learned in the meantime has changed this conclusion. Reports of from 30 to 40 pound averages are more common than 60 or above, and this is a poor average for migratory beekeeping practices. Seed alfalfa, generally a very dependable source, did not yield as expected and reports of seed production indicate lower yields than last year. It was apparently a better growing season for hay than for seed. In some areas, however, the yield from alfalfa seed fields was all that could be desired, considering the strength of colonies.

**The Honey Market:** Honey has moved faster to the packer and at retail than during the previous month, and a good portion of the crop has moved out of the hands of the producers. Star thistle honey is sold later than the honey crop in the southern and central counties. Those who are not pressed to sell are generally asking 9 to 12 cents for their better grades, and the retail market prices will support a price of 12 cents to the producer. Those who sell for less are simply aiding in the further decline of producer prices. When honey is selling at retail for from 28 to 31 cents per pound there is no valid reason why a producer should sell for less than 10 to 12 cents for the better grades of honey. More beekeepers are becoming interested in learning what the quotations are on honey before accepting the first offer made for their crops. The producer should occasionally consider the position of the buyer and realize that if he was buying honey he would attempt to buy at as low a figure as possible. He would not purchase any more honey at one time than he could sell in a reasonable time on an unstable market.

**Bear Facts:** The bear population of California, in and out of our national parks, will run into several thousands. When bears become numerous enough to be troublesome in the parks, they are trapped and released elsewhere. Either the past dry season or this movement of bears has caused many apiaries to be raided and seriously damaged this past summer in places where damage has never occurred before. A well-constructed electric fence is becoming a necessity in most mountain locations.

**Miscellaneous:** The new streamlined honey jars are not meeting with the unanimous approval of the grocer or of the housewife. They take up too much room, cannot be stacked to advantage, and are easily upset. An ideal and typical honey jar has yet to be produced. The ones styled after the straw skep or the honeycomb jar of the Lakeshore Brand come more nearly being suggestive of the honey industry than any of the other styles.

**The California State Beekeepers' Association** will hold its annual meeting this year at San Bernardino on December 1, 2, and 3. Headquarters will be the California Hotel, while the meetings are scheduled to be in the American Legion Hall.

**The California Bee Breeders Association** held its fall meeting at the experimental apiary of the College of Agriculture, University of California. The discussions centered around the experiences of this past season and plans for a cooperative study with producers of problems associated with the supersedure of queens, and continued improvement in quality of stock. Dr. Harry Laidlaw demonstrated the artificial insemination of queen bees, using his new instruments and improved technique. Reports of injury from chemical poisoning during the past season were encouragingly lower than for many years. As a consequence, more colonies will be in better condition next spring from which to shake package bees. Fortunately, California does not have any problem with Nosema disease in her package bees and colonies.—J. E. Eckert, Davis, California.

## TEXAS, September 29

**Weather:** The long summer which established a record for number of days with temperature of 100 degrees and above and which extended through the first week of September, was broken abruptly by a general rainfall over most areas of Texas. This brought more agreeable temperature for the remainder of the month with rainfall about normal. A number of local areas, however, are still relatively dry and more rainfall is needed to bring on a fall bloom.

**Bees, Plants, and Honey Crop:** Colonies which were broodless during the late summer resumed brood rearing and at this time have from eight to ten combs of brood with promise of a good force of young bees for winter. Pollen is fairly abundant from a great variety of shrubs, vines, and herbs with a light flow of nectar. Many colonies are short of stores and must be moved to better pasture to avoid winter feeding. Asters are generally scarce but in favored localities there is a good bloom of evergreen sumac and broom weed and a good many apiaries are moved to such locations. Since the recent rain some beekeepers are extracting a small crop of spring and summer honey. In the Lower Rio Grande Valley a fair summer crop was gathered from cotton but some apiaries in the area suffered serious loss from poisoning. In spite of recent extracting the total honey crop is the smallest in many years. Farmers are now preparing fields for fall seeding of legumes. More rainfall is needed to insure good germination of these crops and the native horsemint and early spring blooming annuals to provide good bee pasture for the coming year.

**Market:** Since the coming of cool weather retail sale of honey shows some improvement and prices are steady. A few large lots are reported at 8 to 9c. With the small crop of the current year and the carryover of 1947 the supply of honey in producers' hands is not large. Packers still have a relatively large supply, a good portion of which was purchased at a high price. It is of utmost importance that retail sales be boosted. National Honey Week, during the last week in October, offers a good opportunity to begin a vigorous advertising campaign for the sale of honey in each state and major producing areas to bring honey to consumers and reduce the present supply to a minimum by the time the 1949 crop is harvested. This is of particular interest to producers in order to attain a more stable and remunerative price in the coming year.

**Miscellaneous:** Beekeepers are reminded that the Texas Apiary Inspection Service issues a report on current inspections, showing condition of colonies and that issue of health certificate has been discontinued for movement of colonies. Beekeepers planning to move across county lines may obtain the required permit from Dr. F. L. Thomas, State Entomologist, by giving full particulars relative to moving the colonies. In this way the movement of clean colonies is not hampered, and this procedure provides a more complete record of the location of apiaries which is essential to more effective inspection and disease control.—A. H. Alex, San Antonio, Tex.

## COLORADO, October 8

After a very nice and sunny September, with temperatures playing around 95 degrees most of the time, a sudden turn in the weather sent the thermometer down to 22 degrees above zero on October 7, marking the first frost of the season here. In San Luis Valley the mercury dropped to 12 degrees above zero.

We have had very little rain since August and it is badly needed to put the plants in shape for winter. Young sweet clover may suffer or die out unless rain comes to the rescue.

The honey crop in the Arkansas Valley was rather spotted. Some yards, plagued with grasshoppers, produced little or nothing while others produced a fair crop. On an av-

erage there is about a 60-pound can per colony harvested.

The demand for honey has improved much over what it was a year ago, but could be much brisker. The price usually asked for a 5-pound pail at the grocer is from $1.00 to $1.10.

The bees are entering winter in fine shape and with brood chambers well filled with honey. Brood rearing was carried on later than usual and brood can still be found in most colonies.

As a cure for EFB I have a report that iodine has been used with success. In experimenting last spring, a beekeeper feeding a 5-pound pail of syrup containing 10 drops of iodine to some EFB colonies reported success. Colonies with EFB not fed this mixture dwindled down to worthless colonies. If iodine acts as a germicide or just arrests the growth of **Bacillus pluton** remains **to be proved.** The development of EFB may be favorable where there is a deficiency of iodine. — G. A. Pauli, Pueblo, Colo.

## MISSISSIPPI, October 4

**Weather:** After a very dry spring which cut off the flow from sweet clover and other plants at that time, plenty of rain fell during the late summer and early fall and most fall plants are yielding **well.** Spanish needle has done well in some locations, and bitterweed, which was almost a complete failure in 1947, is giving a good flow for winter stores. Recent inspections indicate that colonies are generally in better shape for winter than in any recent year.

**Honey Crop:** Drouth during the spring cut the crop a great deal. At State College a few colonies produced over 100 pounds but the average was about 50, with some late spring transfers yielding no surplus. The fall crop has been good and where not contaminated with bitterweed should make a good average for the year.

**Market:** The demand for honey is sluggish. Prices will probably be reduced, but in this section the demand is apparently not greatly influenced by the price. At State College half gallon jars are retailing at $1.00 per jar, but higher prices are prevailing on smaller containers in grocery stores.

**Migrating Beekeepers:** Thousands of colonies from South Dakota and Minnesota will winter in Mississippi, chiefly in the southwestern part of the state below Natchez. Before permits are issued, inspection certificates showing freedom from all disease for two years and an affidavit that sulfa drugs have not been fed must be submitted. Applicants must also agree not to locate within three miles of any bees already on the ground.—Clay Lyle, State College, Miss.

## VIRGINIA, October 8

**Weather:** August and September were very dry. This is going to reduce the fall honey crop. Good rains around the first of October have improved conditions to some extent. Clover has begun to show some new growth, which may be the beginning of the right conditions for a good crop from clover in 1949.

**Honey Crop:** The honey crop was somewhat less than one half a crop. Sourwood was almost a failure. Bees are in fair condition, but will have to be fed for winter in apiaries that had all their supers removed late in the season. Beekeepers are beginning to look forward to another season. Much requeening has been done, looking to strong colonies next spring. But in many cases these queens have been superseded, or turned out to be drone layers. We need better queen breeders. There are several large lots of bees being offered for sale. Some of these bees are owned by beekeepers who are too old to care for them while others are owned by beekeepers who wish to get into some other business.

**Market:** Honey has moved much better than some beekeepers predicted. The larger beekeepers have about 60 percent of their honey still on hand, but the small beekeepers have sold out or have only a small amount still unsold. Honey has been selling at prices slightly less than last year. Section comb honey has been in good demand at 35 cents to the retail merchant. Nice sections

are very scarce.

**Miscellaneous:** The Virginia State Beekeepers' Association in cooperation with the Agriculture College at Blacksburg put on a two-day Beekeepers' Short Course in Lynchburg on August 17 and 18. There was a good attendance and every one expressed himself as having had an enjoyable time and asked that it be made a yearly affair. We are now making plans to have the next Short Course in Blacksburg. — Henry W. Weatherford, Vernon Hill, Va.

## NEW JERSEY, October 7

**Weather:** The wet weather during the early part of the season was favorable for the development of autumn blossoming plants and resulted in the heaviest stand of white asters **(Aster ericoides)** in years. Further, weather conditions during the blossoming period of this plant have been favorable save for a few foggy mornings, until four days ago. This is being written Oct. 7. However, since there has been no frost as yet, the asters are good for four or five more days if weather favors.

**Miscellaneous:** New Jersey beekeepers on the whole are conscious of the value of honey bees as pollinators and are willing to cooperate with the federal department regarding the increase of colonies. However, with the lack of surplus honey last season and the heavy winter loss, this discouraging condition resulted in little or no increase being made.

This discouraging condition apparently carried over into the summer as there has been an exceedingly small amount of requeening done. This is not a happy condition as it may result in cessation of brood rearing too early for an assured number of young bees for winter.

The excellent fall crop has assured an abundance of winter stores if beekeepers do not become too greedy. While aster honey has sometimes been condemned as winter stores, the writer has never seen ill effects from it.

Unfortunately perhaps, in this neighborhood honey is a seasonal food hence there is no definite movement yet, although there have been some inquiries. There is a small retail movement of comb honey at 40 cents and 45 cents a section.—Elmer G. Carr, Pennington, N. J.

## SASKATCHEWAN, October 5

**Weather:** After a most unusual spring marked by snow and floods in May, bees built up rapidly and as the fine weather continued in the fall we were able to take full advantage of all flowers.

**Crop:** Reports indicate that our crop will be about average this year although northern parts will have a better than average crop. Honey is exceptionally heavy bodied and light colored. Many samples are being received with around 14 to 15 percent moisture.

**Market:** The market for honey continues slow. As there is strong competition at this time of year from fresh fruits, little improvement is expected until next month.

**Miscellaneous:** Canada has honey carry-over from last year and if this year's crop, which is better than average throughout the country, is to be marketed, reasonable prices must be maintained. Honey has never received the advertising it deserves and the Canadian Beekeepers' Council is currently trying to institute the national honey advertising campaign which, if put into effect, will be the biggest forward step in honey marketing in recent years.—R. M. Pugh, Tisdale, Saskatchewan, Can.

## RHODE ISLAND, October 6

**Weather** continues to be warm during the daytime and cool at night with no precipitation in sight. A few heavy showers during September somewhat stimulated fall growth of flowers, but during the past ten weeks New England has experienced a real drouth. The United States Weather Bureau reports only 2.17 inches of rain for



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September, which is .91 below normal. In the area which depends heavily on fall nectar not only for surplus but adequate winter stores as well, the lack of rainfall has been a serious handicap to beekeepers. Goldenrod, which grows in profusion throughout Rhode Island, has been a disappointment; the bloom looks good but actually is yielding very little nectar. Fall aster, another standby, is seriously affected by the dry spell.

**Market:** The demand for native honey is slow, with retail prices ranging from 40 to 50 cents a pound. Many producers report considerable quantities of 1947 honey still on hand. The abundance of western honey selling locally for less than 35 cents a pound, and the general tightening of spending have been factors contributing to the lessening of local demand. The best customers seem to be those persons who have developed a taste for Rhode Island honey which for the most part is a delightful blend of many varieties of flowers rather than a predominance of any one species. Perhaps a well organized cooperative guided by the National Council of Honey Cooperatives is needed here to assist producers in marketing their crops. To date this state has not had an enterprise of this nature.

**Honey Crop:** At our September state meeting I heard some of the old timers say that this wasn't the worst season that they had seen, but that it probably wasn't far from it. Throughout the state the crop is estimated at not more than 50 percent of normal. The cold, wet spring was conducive to excessive swarming which greatly retarded colony growth. Sumac and Clethra proved to be excellent sources of nectar until they were struck by one hot spell after another. Despite the discouragements of the past year, however, beekeeping is on the increase in Rhode Island. The State Department of Agriculture reports an increase of 25 registered persons over a year ago, with a total of 385 beekeepers. The number is small compared with many other states, but it must be borne in mind that we are essentially a manufacturing center, with relatively large urban areas. Ten years ago there were 650 registered beekeepers; our gain this past year is small, but it is headed in the right direction.

**Wintering Prospects:** Despite the severe drouth, most beekeepers report that the light nectar flow extending over a long period has made it possible for the bees to fill and cap brood and food chambers. Even with a hard winter our bees should be in good shape to try again next season. After all, they can't be held responsible for the weather!

**Miscellaneous:** Extensive plans are under way to provide beekeepers with a carefully planned series of lectures which will be given at the winter meetings. These lectures are designed to cover specific problems and deal especially with aspects of New England beekeeping. Some well known specialists have already been engaged; in a state as small as ours this should mean that everyone will be able to learn about the latest techniques in bee culture.

At the State College at Kingston there were 11 healthy colonies in the spring of 1947. A nearby apple orchard had a cover crop of clover. Extensive experimental spraying was carried on when the clover was in bloom, with the result that the apiary was nearly wiped out. Two-pound booster packages were added, which finally helped to bring the colonies back to normal. This year the spraying was not done when the clover was in bloom and no appreciable harm resulted to the bees. Moral: It isn't the spray that is done to trees that is harmful, but to the cover crop where the bees visit, that causes the real damage.—Robert W. Peabody, Providence, Rhode Island.

## ST. LOUIS COUNTY MEETING

(Continued from page 699)

Louis County Court House where we meet into a veritable honey house, and with a well-filled super gave an actual demonstration of his method of extracting. The picture on page 699 displays the avid interest of his audience.

Increased interest in beekeeping in the St. Louis-St. Louis County area has brought in many new members during the past year, among whom were a large number not thoroughly acquainted with how to handle surplus after it is removed from the apiary.

## Do They Never?

**By Allen Latham, Norwichtown, Conn.**

It is a common belief that bees will not store honey near the entrance, lest it make robbing easy. There was a time when I believed this, but soon after I began to use hives with frames parallel to the entrance I discovered that this belief like so many others so common in bee lore was entirely false.

It is my custom to fill all frames except that one next to the front wall of a hive with full sheets of foundation. The frame in front is given only about two thirds of a sheet. This is for the purpose of controlling to some extent the building of drone comb. My bees had the habit when I used full sheets in all frames of tearing down the side walls of patches of worker comb and rebuilding the spaces with drone cells. It is the custom of bees to have about one tenth drone comb, and if they do not have that amount they will tuck bits of drone comb in every nook and corner.

I have used the side entrance hive for nearly 50 years now and would not consider going back to the end entrance, there being so many advantages of the side entrance. Untold numbers of times I have found that front comb solid with sealed honey nearly to the bottom. Very frequently the upper part of worker comb will be solid with honey, and sometimes also the drone comb below. I have again and again found honey within an inch of the entrance.

It is not unusual when the front comb and the second comb are well filled with honey to find the two back combs solid with brood—not with honey. However, it is more often that the back combs are filled with honey while the front combs are full of brood. This is true I think because in early spring the brood nest has a center nearer the back than the front, this being due to the gradual movement of the colony back as winter advances, and egg laying is thus nearer the back.

Every beekeeper is aware that bees are prone to cut down the comb close to the entrance, not for safety of honey but to have more air space next to the entrance, or more freedom of movement. Many a beekeeper errs in replacing a comb while at work on a colony without regard as to how he replaces it. This results in many combs in his hive having triangular bits of drone comb in both ends of many frames. He puts a comb back with an end to the rear from which the bees have gnawed away a corner of worker comb. The space is filled with drone comb by the bees and the corner next the entrance is gnawed away, later to be filled with drone comb. It is my custom to replace every comb in the same position it had when taken out.

Just a few days ago I found a front comb solid with sealed honey about two thirds down and from there solid with sealed drone brood. I am sorry that I did not take a picture of it to go with this article.

## Royal Jelly Eaters

**By A. M. Southwick, Waban, Mass.**

Mr. Max Molin of Elm St., North Reading, Mass., a member of our Middlesex County Beekeepers' Association, reported at our meeting April 24th the occurrence in his apiary last season of a queen like the one described in our article on page 584 of October, 1947, Gleanings. This queen, which he called a royal jelly eater, remained in the hive after her change of life, like the one we observed, as large or larger than the best queen in a normal colony at peak egg laying; though her corpse when he brought it to the meeting had shrunk by drying to the size of a live worker bee.

This recurrence indicates that the condition, though rare, is not a freak. If anyone else should find such a queen which has suddenly and completely stopped egg laying without causing the colony to supersede her or start drone layers, please drop her into alcohol or amyl acetate and send the bottle with an explanatory note to Dr. Carver, Harvard University, Cambridge, Mass., where a specimen is wanted for dissective investigation



XUM

# 1948 Honey Production and Stocks on Hand Sept. 15 for Sale

From Oct. 8 Report of Bureau of Agricultural Economics, U. S. Department of Agriculture

| State and Division | Colonies of bees | | Yield per colony | | Honey production | | Honey for sale in producers' hands on Sept. 15, 1948 |
|---|---|---|---|---|---|---|---|
| | 1947 | 1948 | 1947 | 1948 | 1947 | 1948 | |
| | Thousands | | Pounds | | Thousand Pounds | | |
| Maine | 8 | 7 | 22 | 19 | 176 | 133 | 60 |
| N. H. | 4 | 4 | 31 | 37 | 124 | 148 | 92 |
| Vt. | 9 | 9 | 48 | 33 | 432 | 297 | 193 |
| Mass. | 24 | 24 | 25 | 20 | 600 | 480 | 168 |
| R. I. | 1 | 1 | 23 | 22 | 23 | 22 | 10 |
| Conn. | 19 | 18 | 36 | 33 | 684 | 594 | 267 |
| N. Y. | 219 | 219 | 60 | 57 | 13,140 | 12,483 | 5,617 |
| N. J. | 33 | 31 | 19 | 35 | 627 | 1,085 | 282 |
| Pa. | 195 | 174 | 35 | 43 | 6,825 | 7,482 | 2,469 |
| N. A. | 512 | 487 | 44.2 | 46.7 | 22,631 | 22,724 | 9,158 |
| Ohio | 373 | 321 | 24 | 32 | 8,952 | 10,272 | 3,390 |
| Ind. | 198 | 172 | 22 | 39 | 4,356 | 6,708 | 3,354 |
| Ill. | 232 | 216 | 29 | 20 | 6,728 | 4,320 | 3,067 |
| Mich. | 204 | 173 | 35 | 45 | 7,140 | 7,785 | 4,282 |
| Wis. | 212 | 195 | 55 | 38 | 11,660 | 7,410 | 4,594 |
| E. N. C. | 1,219 | 1,077 | 31.9 | 33.9 | 38,836 | 36,495 | 18,687 |
| Minn. | 299 | 290 | 68 | 70 | 20,332 | 20,300 | 8,323 |
| Iowa | 251 | 246 | 96 | 30 | 24,096 | 7,380 | 4,502 |
| Mo. | 209 | 203 | 21 | 22 | 4,389 | 4,466 | 983 |
| N. Dak. | 23 | 21 | 56 | 90 | 1,288 | 1,890 | 1,153 |
| S. Dak. | 18 | 17 | 76 | 85 | 1,368 | 1,445 | 1,012 |
| Nebr. | 55 | 55 | 100 | 50 | 5,500 | 2,750 | 688 |
| Kans. | 64 | 64 | 40 | 56 | 2,560 | 3,584 | 1,434 |
| W. N. C. | 919 | 896 | 64.8 | 46.7 | 59,533 | 41,815 | 18,095 |
| Del. | 3 | 3 | 30 | 28 | 90 | 84 | 17 |
| Md. | 30 | 31 | 26 | 36 | 780 | 1,116 | 502 |
| Va. | 145 | 154 | 32 | 24 | 4,640 | 3,696 | 1,441 |
| W. Va. | 107 | 116 | 21 | 18 | 2,247 | 2,088 | 397 |
| N. C. | 173 | 187 | 36 | 22 | 6,228 | 4,114 | 453 |
| S. C. | 66 | 66 | 20 | 13 | 1,320 | 858 | 223 |
| Ga. | 225 | 232 | 19 | 23 | 4,275 | 5,336 | 1,441 |
| Fla. | 195 | 199 | 42 | 41 | 8,190 | 8,159 | 4,895 |
| S. A. | 944 | 988 | 29.4 | 25.8 | 27,770 | 25,451 | 9,369 |
| Ky. | 208 | 193 | 17 | 13 | 3,536 | 2,509 | 251 |
| Tenn. | 189 | 185 | 22 | 18 | 4,158 | 3,330 | 866 |
| Ala. | 192 | 202 | 17 | 16 | 3,264 | 3,232 | 646 |
| Miss. | 80 | 82 | 20 | 18 | 1,600 | 1,476 | 531 |
| Ark. | 94 | 101 | 21 | 22 | 1,974 | 2,222 | 889 |
| La. | 87 | 96 | 22 | 20 | 1,914 | 1,920 | 480 |
| Okla. | 64 | 58 | 35 | 33 | 2,240 | 1,914 | 957 |
| Tex. | 292 | 283 | 42 | 24 | 12,264 | 6,792 | 2,038 |
| S. C. | 1,206 | 1,200 | 25.7 | 19.5 | 30,950 | 23,395 | 6,658 |
| Mont. | 64 | 64 | 70 | 113 | 4,480 | 7,232 | 3,761 |
| Idaho | 169 | 172 | 40 | 35 | 6,760 | 6,020 | 5,418 |
| Wyo. | 42 | 34 | 34 | 74 | 1,428 | 2,516 | 1,736 |
| Colo. | 75 | 76 | 65 | 90 | 4,875 | 6,840 | 4,993 |
| N. Mex. | 19 | 20 | 45 | 45 | 855 | 900 | 846 |
| Ariz. | 63 | 63 | 64 | 49 | 4,032 | 3,087 | 2,254 |
| Utah | 55 | 52 | 45 | 55 | 2,475 | 2,860 | 2,488 |
| Nev. | 13 | 14 | 70 | 61 | 910 | 854 | 811 |
| Wash. | 77 | 77 | 50 | 28 | 3,850 | 2,156 | 949 |
| Oreg. | 69 | 64 | 33 | 32 | 2,277 | 2,048 | 1,147 |
| Calif. | 470 | 442 | 36 | 51 | 16,920 | 22,542 | 11,271 |
| West | 1,116 | 1,078 | 43.6 | 52.9 | 48,862 | 57,055 | 35,674 |
| U. S. | 5,916 | 5,726 | 38.6 | 36.1 | 228,582 | 206,935 | 97,641 |

# American Honey Institute News Notes

**By Harriett M. Grace, Director**
**Commercial State Bank Building**
**Madison 3, Wisconsin**

**A formal Announcement:** The American Honey Institute regrets that due to the high cost of printing it will be unable to print 1949 honey calendars.

**A change:**

The sudden switch to dial phones in Madison, Wisconsin, has confused many beekeepers and consumers who call the Institute for information. No longer can they rely on their memories to recall the telephone number of the Institute. So for all of you who hear "Wrong number!" every time you call the Institute, here is the new number: 5-3714.

**A helping hand:**

Not the least of the mail consists of membership fees which arrive daily. Many, many due cards are being returned to the office accompanied by the monetary appreciation of the beekeepers. **It is your dues that keep the Institute honey promotion grogram an active, progressive one.**

**A bit of praise** for those of you who worked hard at summer fairs:

"Enclosed find ten cents for recipe book to make good things like those seen at the county fair I went to recently."

"We've always eaten some honey, but since the State Fair, seeing the wonderful honey displays, we've really gone in for honey!"

**A reminder** that might well be heeded:

With prices going up it is inevitable that the low price mark that presently is attached to the literature published by the American Honey Institute soon will have to be changed. Be penny-wise and buy now from the low cost literature supply that the Institute has on hand.

**A smart gift and a word of wisdom** that were sent to this bride:

"Will you please send Mrs. Brown a copy of the New Favorite Recipe Book? Mr. and Mrs. Brown were married last Saturday and I want them to commence right!"

**A sample** of the recognition that was accorded to the Institute all over the world and proof of the far-reaching success of its professional advertising program:

"I saw your advertisement about Honey in the last issue of the Journal of the American Dietetic Association . . . I am preparing a monograph on nutritional problems using a newly developed system of demonstrating the true 'inner' value of food. I would be very much pleased to have your nutritional booklet on honey . . ." This letter came from Austria.

**A suggestion:**

November is not too early to start thinking of Christmas gifts. Have you ever considered sending either the Old or New Favorite Honey Recipe Books as gifts or Christmas cards? Many wise beekeepers that we know send the books out as Christmas cards with their names and addresses stamped on the back —Honey business for them the following Honey season was exceedingly good. It is good honey promotion at a minimum of cost to you.

**A compliment** that came in yesterday's mail:

"It is really hard to determine the good you are doing the honey producers. It is really terrific, I know."

**A Thanksgiving remembrance** from you to the Institute:

Why not send us your membership fee? Contribute according to your conscience.

**A Thanksgiving remembrance** from the Institute to you:

Delight your Thanksgiving guests by combining the tart taste of cranberry relish with the dainty flavor of honey. Here is the recipe:

Pick over and wash two cups of fresh cranberries. Wash and quarter one orange. Put orange and cranberries through food chopper. Add one cup or honey and mix well. Let stand overnight. Chill before serving.

**A final message:**

In this fall month that is set aside for giving thanks, we, the members of the staff of the American Honey Institute want to thank you, the American beekeeper, for your cooperation, confidence, and support of our program. We look forward to another year of mutual cooperation.



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# Just News

**The annual meeting of the Louisiana Beekeepers' Association** will be held in Donaldsonville, La., November 14 and 15. An informal meeting will be held on November 14 at 2:00 p.m. The formal meeting will be the following day, November 15, at 9:30 a.m.—Calvin Bessonet, Pres.

* * * * *

**The California State Beekeepers' Association** will hold their meeting in San Bernardino December 1, 2, and 3, at the California Hotel. All beekeepers and their friends are invited.—Wm. C. Miles.

* * * * *

The 58th annual convention of the **Illinois State Beekeepers' Association** will be held in St. Nicholas Hotel, Springfield, Illinois, on November 12 and 13, 1948. Those planning participation in the program are G. H. Cale, Editor of the American Bee Journal and Associate of Dadant & Sons; Alan Root of The A. I. Root Co. and Gleanings; Dr. C. L. Farrar of North Central Bee Culture Laboratory; Dr. V. G. Milum, Illinois State Apiculturist; Glenn O. Jones, Secretary of the National Federation; Carl F. Killion, Chief Inspector of Apiaries State of Illinois; Lloyd C. Gardner, Chairman of National Board of Honey Marketing Cooperatives; Ray A. Dillinger, Assistant Director of Agriculture of Illinois; George Nagel, Chairman of St. Louis County Beekeepers Association; an Illinois Agricultural Association representative, and American Honey Institute's capable Phyllis Rasmusson. Write St. Nicholas Hotel for reservations.—Hoyt Taylor, Sec.

* * * * *

**Michiana Beekeepers' Association** will hold its next meeting on Sunday, November 21, at 2 p.m. at R. L. Christensen's, Decatur, Michigan, Route 3, about three miles south. There will be signs showing directions. There will be movies for entertainment. — Lester E. Bendt, Treas.

* * * * *

The regular annual convention of the **Minnesota Beekeepers' Association** will be held November 9 and 10 at Lowry Hotel, St. Paul, Minnesota. The meeting is to start promptly at 10 a.m. An interesting program has been arranged to deal with timely topics in beekeeping, both from the production and marketing phase. Several speakers have been arranged for and a bang-up social program is in the making. There will be a banquet on the night of the 9th which we are certain all beekeepers will enjoy. Motion pictures of the latest work on intensive beekeeping will be shown by Mr. H. J. Rahmlow of Madison, Wisconsin. Anyone interested in bees is cordially invited to attend this meeting.—C. G. Langley, Pres.

* * * * *

**The North Carolina State Beekeepers' Association** is planning to hold its fall meeting in Statesville Wednesday, November 10, at the Vance Hotel. This will take the place of the scheduled summer meeting that was postponed due to the serious polio situation. The meeting gives promise of being well worthwhile with several out-of-state speakers scheduled along with the usual local talent. This is a general beekeepers' meeting sponsored by the State Beekeepers' Association, Agricultural Extension Service, and the State Department of Agriculture. Further details can be had by writing direct to Mr. R. W. Murdoch, County Agent, Statesville, N. C.—Frank B. Meacham, N. C. State Museum.

* * * * *

**The Arkansas Beekeepers' Association** will meet in North Little Rock on November 19 and 20.

* * * * *

**The Westchester County Beekeepers' Association** will hold its regular monthly meeting at 2:30 p.m. on November 21, at the Odd Fellows Hall, 20 Lockwood Avenue, New Rochelle, N. Y. After the business meeting, discussions will be had regarding plans for the annual Christmas party on December 19. Instructive movies will be shown and refreshments will be served. Visitors are cordially welcome.—B. F. Miller, Publicity.

* * * * *

**Bees Travel Well by Air.** — The transport of queen bees by air mail over long distances to and from Australia has been successfully carried out this past year. A consignment of queens and escorts was sent by

the New South Wales Department of Agriculture to Russia, and two nucleus colonies were dispatched to Indo-China. Thirty queen bees came to New South Wales by air from United States without a single loss. However, some Grey Caucasian queens sent from Russia did not survive the trip. Quarantine regulations must be strictly observed when bees are imported into Australia. The cages containing the queen bees and worker escorts are forwarded to the Chief Quarantine Officer at the place of entry into the country, and the insects are examined for disease. When bees are to be sent abroad, escorts are carefully chosen from young workers about the age of those taking play flights. Combs are selected for strength. Those with brood and stores that have been in use for some time stand up to reasonably rough handling while traveling.—Australian Weekly Review.

* * * * *

**The South Arkansas Beekeepers' Association** met at Camden, Ark., on September 24, it being their quarterly meeting. A very good meeting was held and enjoyed by all attending. It was decided to send a notice of the following to each bee journal and the National Federation and we urge each one to carefully study it and discuss in the various meetings following:

"Whereas, the present prices of honey have declined from a profitable basis, and whereas, the nation's farm prosperity depends in a large way on the amount of bees available for pollination; Therefore, be it resolved that each beekeepers' association, working through the National Federation, urge each beekeeper to write his Congressman, urging that proper and adequate steps be taken to have honey prices pegged at not less than a living and profitable price. This association recommends that honey be handled like cotton, wheat, etc., and we believe 17 cents per pound wholesale in 60-pound cans to be a fair price."—S. J. Head, President, Crossett, Ark.

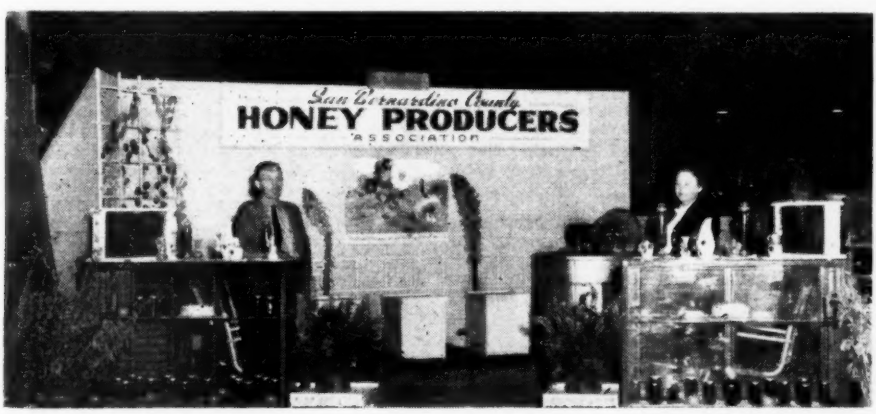
* * * * *

**The Table** from the **Federal Honey Report** reproduced on page 714 of this issue shows that the total U. S. honey crop is only 206 million pounds—nearly 22 million pounds less than last year. When the final figures for light honey are assembled it may develop that the shrinkage in light honey from last year is even greater. This is not a time to get scared over the way honey is selling!

* * * * *

**The Colorado Beekeepers' Association** will hold its annual meeting December 6 and 7 in the Auditorium Hotel, Denver, Colorado.—J. Kyle McClaugherty, Sec.

# A Beautiful Honey Display




**Mr. and Mrs. Wm. C. Miles of San Bernardino, California, have produced an attractive and successful exhibit.**



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# Buy and Sell Here

## CLASSIFIED ADS

Only responsible advertisers and honest advertisements will be admitted to these columns. References required from new advertisers not known to us. Rate:—15c per counted word, each insertion. Each initial, each word in names and addresses, the shortest word such as "a" and the longest word possible for the advertiser to use, as well as any number (regardless of how many figures in it), count as one word. Copy should be in by the 10th of the month preceding.

### HONEY FOR SALE

WE BUY AND SELL all varieties of honey. Any quantity. Write us for best prices obtainable. The Hubbard Apiaries, Manufacturers of Bee Supplies, Onsted, Michigan.

CLOVER HONEY, No. 1 white extracted, 16c per lb. in 60's. Ask for prices on section and chunk comb. Lose Brothers, 206 E. Jefferson, Louisville, Ky.

Raspberry, milkweed, clover honey in retail packages or bulk. Write for prices. Northern Michigan Apiaries, Petoskey, Michigan.

NEW CROP of honey shipped daily from producer in Florida. Pure orange blossom, 5 lb., $2.25; Pure Florida comb honey, 5 lb. pail, $2.75. No C.O.D. orders, all shipments prepaid. E. R. Raley, Daytona Beach, Box 1610, Florida.

FOR SALE—Amber extracted honey in 5-lb. glass jars. Also white clover in new sixties. State amount wanted. L. S. Griggs, 711 Avon St., Flint 3, Mich.

COMB HONEY No. 1 clover. W. R. MOOMAW, Stone Creek, Ohio.

Amber extracted in 60's, 12c; extra dark capping meltings, 8c per lb. H. G. Quirin, Bellevue, Ohio.

CLOVER-SUMAC extracted honey in 60 lb. cans. Also some amber extracted. Prices right. Albert Hann, Glen Gardner, New Jersey.

LIGHT AMBER CLOVER and buckwheat extracted honey in 60's, also comb honey. W. C. Long, 1325 Andre St., Baltimore, Md.

Florida Tupelo, California orange blossom, buckwheat, and clover in sixties or in glass. Alexander Company, 819 Reynolds Road, Toledo, Ohio.

BUCKWHEAT comb honey for sale. Also few cases fall comb. Noel J. Loucks, Springboro, Pa.

CLOVER HONEY — White and water white suitable for bottling; will pack as requested. Angus Carruthers, Rt. 2, Syracuse, N. Y.

LIGHT AMBER in 60's at 12½c; buckwheat, 10c. F. J. Smith, Castalia, Ohio. Rt. 1.

200 60's clover and amber honey. State amount wanted. W. E. Rose, 913 W. 6th Ave., Flint, Mich.

### HONEY AND WAX WANTED

BEEKEEPERS TAKE NOTICE—We can not guarantee honey buyers' financial responsibility, and advise all beekeepers to sell for cash only or on C.O.D. terms except where the buyer has thoroughly established his credit with the seller.

WILL PAY over market price for clean yellow beeswax. Also white clover honey. Roscoe F. Wixson, Dundee, N. Y.

WANTED — White and amber honey, any amount. D. F. Treap, 316 Keenan Ave., Cuyahoga Falls, Ohio.

HONEY—Carloads or less. Mail sample, price, quantity. Konces, North Abington, Mass.

WANTED—EXTRACTED HONEY— Clover or light amber. C. H. Denny, 483 Moody St., Akron, Ohio.

CASH FOR BEESWAX. Write as to quantity and we will quote price. Muench-Kreuzer Candle Co., Inc., Syracuse, N. Y.

CASH FOR YOUR HONEY — Extracted or comb. Regular trade, send sample. 60-lb. cans furnished, if desired. W. R. Moomaw, Stone Creek, Ohio.

HONEY WANTED—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. HAMILTON & COMPANY, 1360 Produce St., Los Angeles, Cal.

COMB HONEY WANTED—Advise quantity, grade, price wanted, and how packed. F. H. Hauck, P.O. Box 84, Kew Gardens, N. Y. Bank reference furnished on request.

HONEY AND WAX WANTED. Mail Sample. Advise quantity. BRYANT & SAWYER, 2425 Hunter St., Los Angeles 21, California.

WANTED—All grades extracted or comb honey, carloads or less. Honeymoon Products Co., 39 E. Henry St., River Rouge 18, Mich.

WANTED clover honey of good quality. Please submit samples and best price delivered to our plant. Schultz Honey Farms, Ripon, Wisconsin.

WANTED — Buckwheat in 60's, any amount; also amber clover. Send sample and delivered price. Eastern Food Products, 115 Division Ave., Bklyn, N. Y.

HONEY—carloads or less. Mail sample and price. Top prices for your beeswax. We have carloads of all sizes glass and tin at wholesale. Alexander Company, 819 Reynolds Road, Toledo, Ohio.

LIGHT AMBER AND AMBER HONEY in 60 lb. cans wanted. Send representative sample and best price. C. W. Aeppler Company, Oconomowoc, Wisconsin.

## FOR SALE

Six spout semi-automatic Syphon Bottle Filler. Perfect condition. 200 cases per day. $175.00. Alexander Company, 819 Reynolds Road, Toledo, Ohio.

PAPER SHIPPING CARTONS, sample mailing cases, pumps. See display advertisement. Roscoe F. Wixson, Dundee, N. Y.

QUEENBEE PAINTING OUTFIT, $1.00; colony records, 10c-15c postpaid. Southwick Apiaries, Waban, Mass.

WE CARRY a full line of ROOT QUALITY Bee Supplies. Prairie View Honey Co., 12303 12th St., Detroit 6, Mich.

DECORATE with beautiful mistletoe at Christmas time. Write for prices, shipping dates. Chester Allen, Cisco, Texas.

WE MANUFACTURE BEEKEEPERS' SUPPLIES. Write for Price List. Marshfield Mfg. Co., Marshfield, Wisconsin.

YOUR WAX WORKED into high quality medium brood foundation, 22c pound. 100 lbs. $18.00. Fred Peterson, Alden, Iowa.

SIMPLEX TRAP clips queens without handling. $1.75 postpaid. INSTANT FRAME SPACERS, eight-nine. Specify size. $1.50 postpaid. Free circulars. George Leys, 36 Jackson St., New Rochelle, N. Y.

FOR SALE — Write for large free Bee Supply Catalog. We manufacture bee hives, foundation, tanks, and extractors. Listing many items not found in other catalogs. Walter T. Kelley Co., Paducah, Ky.

WRITE FOR CATALOG — Quality Bee Supplies at factory prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Apiaries, Manufacturers of Beekeepers' Supplies, Onsted, Mich.

FOR SALE—Two frame hand honey extractor in perfect condition, used one season. Made by Standard Churn Co. Price $20.00. J. P. Allen, 10626 S. Campbell Ave., Chicago 43, Ill. Phone Ced. 3,6184.

BEEPKEEPERS! ATTENTION!! You will never get stung investing in VOHO Entrance Closures. Completely closing a hive in 3 seconds, yet insuring ample ventilation, should appeal to every progressive honey producer. Write, wire, or come a-riding to VOHO PRODUCTS, 2916 Orange Street, Norfolk 2, Virginia. For cash—Uppers, 80c. Lowers a buck thirty, plus postage. Cheaper too in quantity.

## BEES AND QUEENS FOR SALE

We use all possible care in accepting advertisements, but we cannot be held responsible in case disease appears among bees sold or if dissatisfaction occurs. We suggest that prospective buyers ask for certificate of inspection as a matter of precaution.

GOOD ITALIAN QUEENS, $1.00 each; 10 for $9.00. D. W. HOWELL, Shellman, Georgia.

BOOKING PACKAGE BEES with Caucasian Queen for spring delivery. Write Miller & Evans, Three Rivers, Texas, Rt. 1.

ITALIAN QUEENS, $7.00 per dozen, every queen guaranteed and sent by air mail. Walter D. Leverette, Box 364, Fort Pierce, Florida.

SURPLUS 400 colonies in Florida full of bees and honey all or in part, suitable for package bees or honey production. Inspection certificate furnished. Information on request. Box 4, Gleanings, Medina, O.


**HONEY LABELS**

Improved designs, embodying color, balance, simplicity, and distinction. Please send for free samples & prices.

**C. W. AEPPLER COMPANY**

Oconomowoc, Wisconsin

**Michigan Headquarters for**

Root QUALITY

**Bee Supplies**

**Comb and Cutcomb Packages**

**Glass and Tin Honey Containers in all standard sizes**

**Prompt Service**

**Michigan Bee and Farm Supply**

**Box 7 Lansing 1, Mich.**

**Successor to M. J. Beck Co.**

**PATENTS** Keep up with the latest U. S. Patents in the beekeeping field by reading our illustrated monthly feature "Patents on Parade". It's exclusive!

Send $2.00 for one year

**SOUTHERN BEEKEEPER**

Hapeville, Georgia

**HONEY WANTED**

Carloads and less than carloads. Mail sample and best prices in all grades.

**C. W. AEPPLER COMPANY**

Oconomowoc, Wisconsin




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**Bees and Queens**

**ITALIANS CAUASIANS**
**RESISTANT-STOCK**
**Daughters of Queens**
**bred for resistance.**

We breed all three races in separate yards.
Booking orders now for 1949 shipping.

**Over 30 years a shipper**
**Send for Free Circulars**

**Blue Bonnet Apiaries**
**Weslaco, Texas**

**The John M. Davis Strain Italian Queens**
**Bred the Davis Way**

These queens are reared in Nucs with three full-depth standard frames of brood, bees, and honey; no baby nucs used. They are well fed from time of hatching until mated and laying, making stronger, larger, fully developed queens. Try them; you'll like them or your money refunded

**Price $1.00 each**
**Write for quantity prices**

**Little's Apiaries**
P. O. Box 122
Shelbyville, Tenn.

**High Quality**
**ITALIAN BEES AND QUEENS**
If you want High Quality Queens and Package Bees for 1949 at a reasonable price, Send your inquiry and requirements to:

**Carlus T. Harper**
New Brockton, Ala.

**Italian Bees and Queens for 1949**
**Write for prices**
Two and 3 pound packages; 2, 3, and 4 frame nuclei, one or a truck load. Also queenless packages.

**Walker Apiaries**
Box 894 Pharr, Texas

FOR SALE—230 colonies of bees, three story, strong, plenty honey for winter. Inspected. M. W. Harvey, Rt. 2, Box 301, Sebastapol, Calif.

CAUCASIANS. Booking orders for 1949 for package bees and queens. Lewis & Tillery Bee Co., Route One, Box 280, Greenville, Ala.

FOR SALE—600 colonies bees 2-story, heavy with honey, $10.00 each. Also complete equipment for operation of 800 colonies. Inspection certificate furnished. Northern Michigan Apiaries, Petoskey, Michigan.

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WANTED—Beekeeper to help operate 400 colonies bees, GI training approved, year-around employment, house available, furnish references. Charles Bangham, Lancaster, Ohio.

## TURKEYS

RAISE TURKEYS THE NEW WAY. Write for free information explaining how to make up to $3,000.00 in your own pack yard. Address: NATIONAL TURKEY INSTITUTE, Dept. 253, Columbus, Kansas.

## WANTED TO BUY

WANTED—Root extractor, not less than 4 frame, and uncapping machine, both in good condition. John B. Schick, 224 N. E 16 Street, Miami, Fla.

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"GARAGE APARTMENT." Temporary quarters while building house. Instructions on how to build: 32 page booklet, $1.00. H. C. Lightfoot, Civil Engineer, Richboro 19, Penna.

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ATTENTION BEEKEEPERS IN MINNESOTA and adjacent states. We offer a real service on Lewis-Dadant Supplies, honey containers, and labels at a price saving to you. Top market price paid for extracted honey and beeswax. HONEY SALES COMPANY, 1806-08 NO. WASHINGTON AVE., MINNEAPOLIS, MINNESOTA.

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PLANT 2-year ANISE HYSSOP plants now this fall and have full nectar bloom first season. 5 for $1.20; 20 for $4.40 postpaid. Moss packed. Write for illustrated Folder listing 72 nectar and pollen varieties of rooted plants, vines, trees, and shrubs moss packed. NICOLLET COUNTY NURSERY, St. Peter, Minn.

SEEDS OF HONEY PLANTS. Send for our list describing 45 nectar bearing plants. Pellett Gardens, Atlantic, Iowa.

## MAGAZINES

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SOUTH AFRICA BEEKEEPING
Read the South African Bee Journal. Published every two months. Subscription 7/6 per year to the Treasurer, P.O. Box 3306, Cape Town, South Africa.

WESTERN CANADA BEEKEEPER—Official organ of the Manitoba Beekeepers' Association. One year, $1.00. 206 Donalda Bldg., Winnipeg, Canada.

THE BEE WORLD—The leading journal of Great Britain and the only international bee review in existence. Specializes in the world's new in both science and practice of apiculture. Specimen copy post free. 12 cents stamps Membership in the Club including subscription to the paper, 10/6. The Apis Club, L. Illingsworth, The Way's End, Foxton, Royston, Herts, England.

DO YOU FIND it difficult to secure information about sheep and sheep ranching methods? The SHEEP AND GOAT RAISER reaches more sheepmen with more information on range sheep than any other magazine published. Subscription—$1.50, Hotel Cactus, San Angelo, Texas.

**STOLLER'S** Fine Quality Clover Honey, 1948 crop, excellent for bottling. Stoller Honey Farms, Latty, Ohio.

**Hall Apiaries**
Italian Bees and Queens
Booking orders for 1949
P. O. Box 415 Prichard, Ala.

**QUEENS**

**Italian or Caucasian**

We still have some queens for that late requeening or those queenless colonies. Better get them at once.

**Prices:**

1 to 24 ..... 95c
25 to 99 ..... 85c
100 or more ..... 75c

**The Stover Apiaries**
Mayhew, Mississippi

**Whittle's**

**Leather Colored Italians**

Get your Packages and Queens when you want them. Reserve 1949 Shipping Dates Early. Write For Our 1949 Prices On Package Bees and Queens Our Bees and Service Will Please You

**G. E. Whittle**
Star Route West
Greenville, Alabama

**Italian Bees and Queens for 1949**
Reserve your shipping date now for the coming season. Write us for quotations. Reliable, dependable service.
**B. J. Bordelon Apiaries** **Moreauville, La.**

**Better Bred Queens** **Three Band Italians**
We thank our many customers for their patronage this season. We are now booking orders for 1949.
**Calvert Apiaries** **Calvert, Alabama**



XUM

**Requeening?**

**It's Time and It Pays**

**Plenty Select Italian**

**QUEENS**

**90c**

**100 and up 75c each**

**Booking orders for 1949 packages. Send $1.00 per package to hold date.**

**Puett Company**

**Hahira, Georgia**

**CARNIOLANS**
**CAUCASIANS**

Many thanks to our numerous customers for their 1948 patronage. * * * Returning to our Florida apiaries this month. Have enlarged an relocated our Florida yards. Queens and packages early 1949. Watch later ads.

**Albert G. Hann, Glen Gardner, N. J.**

**Three Banded Italian**
**Package Bees and Queens**
**1949 Satisfaction Guaranteed**
**Bessemer Apiaries**
4300 A Raliegh Rd.
**Greensboro, N. C.**

**JACKSON APIARIES**
**Funston, Georgia**
**Three Band**
**Italian Bees and Queens**
**For Sale in 1949**

**Package Bees and Queens**
Book your orders early for next spring now to be sure and get your bees when you want them. Write for prices and details.
**Clover Bee Farms**
HESSMER, LA.

## A TALK TO BEEKEEPERS

(Continued from page 696)

same apiary are not likely to become chilled. During July there are plenty of drones of the proper age for mating.

You will be interested in knowing that some of the colonies from which food chambers were taken put up some surplus honey during the late summer and fall months.

### More about Comb Building in Empty Frames.

Some of you may recall the article appearing on pages 190 and 191 of Gleanings for May 1945 "Producing More Wax by Using Empty Frames". Strange as it may seem, I received very few comments on this article. Possibly it sounded so outlandish and impracticable that most readers did not give it a second thought. Well, I have been experimenting along this line during the last three seasons and still believe that the method is practical and has possibilities. During the present season I have secured good straight combs consisting mainly of drone cells built in empty frames from which old combs had been cut, these frames having been placed in supers between wired, drawn combs. I use five wired drawn combs alternated with four empty frames. When such unwired combs filled with honey were put through the honey extractor, they did not break.

As brought out in the article just referred to, these combs can be cut out of the frames—to produce more wax — or so they can be used over again next season in supers for the storage of surplus honey. My observations thus far seem to indicate that the bees like drone combs for storing honey. I'll have to do more experimenting to determine whether or not the bees prefer them to combs of worker cells.

**First Quality Italian**
**Package Bees & Queens**
**John S. Shackelford**
**Live Oak, California**

**Protect your future. Buy your extra Savings Bonds now.**

**Diary of Amateur Beekeeper**
(Continued from page 675)

this morning! What do you suppose they were doing?

Filling up all those air holes we so carefully made for them, and all the cracks, too! If they'd just go inside, all of them, so I could pull the lid clear over the top, but I'm afraid that I'm going to kill some of them if I move it, and one of them might be the queen!

**July 16.** I got tired of waiting for them to go inside. I guess the weather is too hot. So this morning I went out with a narrow board, and by sliding it carefully along the top I managed to get it laid on without killing any bees. I feel relieved now. I had to put a heavy rock on top as the lid was warping. I guess real hives must have heavier lids.

**July 18.** We finally got some bee books from the State University. They aren't too helpful, as they don't say anything about using dynamite boxes for hives.

**July 20.** The bees started a branch coming out of their doorway, so I gently helped them get it out. When it was out two or three bees came buzzing out 'round my head but they didn't sting me. I just can't get over how gentle they are. I always supposed that bees just hung around waiting for a chance to sting people.

(To be continued)


**YORK'S**

**Package Bees & Queens**

**Quality Bred Italians for 1949**

**The Strain that Honey Producers Prefer**

Now booking orders for the coming season of 1949. Quality bred Italian bees and queens furnished only in neat new cages. We are now preparing to make the coming season one of the greatest and we will be fully prepared to serve you with highest quality and best of service. No deposit necessary until prices are announced.

**York Bee Company**

**Jesup, Georgia, U.S.A.**

**(The Universal Apiaries)**

**Pure Caucasian Bees and Queens**

**We are now booking orders for 1949**

For your protection, we offer to accept your order subject to your approval of prices when released. Health certificate furnished with every shipment.

**Pine Bluff Bee Farms Route 3 Pine Bluff, Ark.**

**(Caucasian Branch — Jesse E. Gooch & Sons)**

**Our National Federation**

**It is serving beekeepers throughout the U.S.A. through the following committees:**

**(1) Honey and Pollen Plants Committee.**
**(2) Agricultural Relations Committee.**
**(3) Honey Grades Committee.**
**(4) Bee Breeders' Committee.**
**(5) Standardization of 5-gallon Can Caps Committee.**
**(6) Research Committee.**

**Help yourself by giving moral and financial support to our National Federation.**

**Send contributions to:**

**Sec.-Treas. Glenn O. Jones, Atlantic, Iowa.**




XUM

**Queens SUNKIST Packages**
**Italian**

Early ordering gets the most favored shipping dates. Expect to start shipping March 15. **2 lb. pkg. with queen, $4.00; 3 lb. pkg. with queen, $5.15. Queens, each, $1.15.**

**Write for prices on quantity lots. DON'T DELAY.**
**TOP QUALITY — — — SATISFACTION GUARANTEED**

**Sunkist Bee Company Convent, Louisiana**

**Gooch's Package Bees & Queens for 1949 Quality Bred Italians**

We are now preparing to make the coming season one of the greatest and will be fully prepared to serve you with the highest quality and the best of service. Orders are being placed rapidly for the coming season, which indicates the demand will surpass previous seasons. In order to obtain choice shipping dates, determine your needs and place your order early. No deposit required until 1949 prices are released. Whether your order is for one package or one thousand, your business is deeply appreciated.

**Jesse E. Gooch & Sons Route 3 Pine Bluff, Ark.**

**One of the World's Leading Strains of Light Colored Italians**

**Write for prices and particulars**

**The Daniels Apiaries Picayune, Miss.**

**QUALITY . . . BESSONET'S . . . SERVICE**

We offer both quality and service on package bees and queens. This combination assures you better crop results. Write us stating your requirements and preferred dates.

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**NEED A QUEEN?**

We have them by return mail so long as weather permits handling. Hollopeter's hardy, hard working, Northern bred Italians. Held in 3-frame nuclei, many of these tested queens.

**One dollar each, any number.**
**Usual guarantee.**

**White Pine Bee Farms, Rockton, Pa.**

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Buy Western-bred queens and package bees for best results. We are now booking orders for spring 1949.

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**Oroville Box 684 California**

**Carniolan Queens**

**Booking orders for 1949**

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**Dark Italians**

**Bees and Queens for 1949**
**Write for prices and details**

**A. M. Peach**
**Baldwyn, Miss.**

Above photo shows a part of our queen yards containing over 10,000 nuclei

## Italian Bees and Young Queens

Get your package bees and queens when you want them. Reserve 1949 dates now. Be safe. No deposit required for early booking.

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**Large Queen Orders Solicited**

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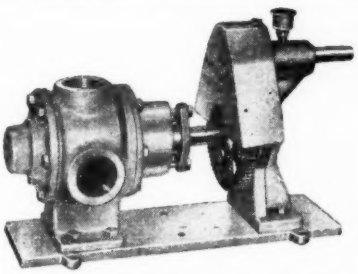

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**A Continually Improved Strain of Disease Resistent Queens is Available from the**

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| | 1 to 9 | 10 to 49 | 50 to 99 | 100 and up |
|---|---|---|---|---|
| 2 lb. pkgs. with DR Queens | $5.20 ea. | $5.00 ea. | $4.75 ea. | $4.65 ea. |
| 3 lb. pkgs. with DR Queens | 6.20 ea. | 6.00 ea. | 5.85 ea. | 5.75 ea. |
| DR Queens | 1.65 ea. | 1.50 ea. | 1.40 ea. | 1.35 ea. |

## Iowa Beekeepers' Association

**State House Des Moines, Iowa**



XUM

## Spring Package Bees - - -

Do not be a quitter. Keep all your equipment in use by using Package Bees that are bred for more honey. Even at a low price for honey, colonies that produce greater surplus can and will show a profit. Empty equipment is not going to make money for you.

Your order will be given our best attention from all angles. Should you care to cancel that is your privilege.

Prices are not set at this time due to unsettled honey market, but you are assured that we will be in line.

Prices will be published in this space as soon as possible.

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## Package Bees Italian Queens for 1949

Queens from proven high producing stock with overweight packages of young bees. Choose your shipping date and book your order with price to be agreed on later.

Live delivery, prompt shipment, and complete satisfaction assured when you place your order with us.

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## 1949
## Garon's Package Bees and Queens

We plan to start shipping next spring as early as weather will permit raising good queens.
Watch our ads and place your order early for preferred dates. 1949 prices later.
**Queen prices for balance current fall:**
**Three-Banded Italians:**
**1-9, 85c; 10-24, 80c; 25-99, 75c; 100 or more, 70c each.**
**D. R. Stock:**
**1-24, $1.30; 25-49, $1.25; 50 or more, $1.20 each.**
**Airmail and Clipped if desired**

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**We are now booking orders for 1949 shipment.**

**The Rich Honey Farms**
**JEANERETTE, LA.**

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**"Magnolia State" Strain**
**Pure 3-Banded Italian Queens**

Queens of Tested Disease Resistant Stock in greater volume, and better than ever.

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Write for Prices
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## for 1949

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## Leather Colored Italian Bees

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**(Successor in part to Jasper Knight & Sons)**

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| 4 lb. package bees with queen | 6.75 | 6.50 | 6.40 | 6.25 |
| 5 lb. package bees with queen | 8.00 | 7.75 | 7.50 | 7.25 |
| QUEENS POSTPAID | 1.35 | 1.30 | 1.25 | 1.20 |

Queens TESTED POSTPAID (each) 2.00

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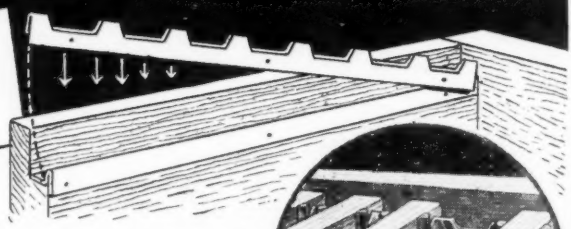

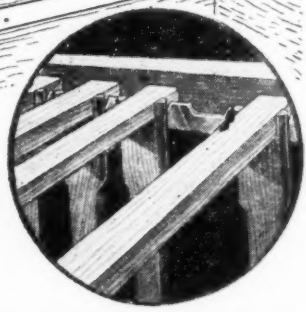

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Protect your future. Buy your extra Savings Bonds now.

## Glass Jars and Tin
## New Style Window Cartons

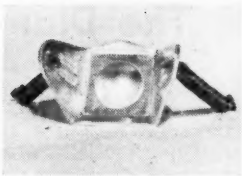
Carloads Glass and Tin — New Stock — Prompt Shipment

**WOODEN BEE SUPPLIES**

We now have complete stock wooden bee supplies and Extractors
Send for Price Sheet and Quantity Discount

## The Hubbard Apiaries

Manufacturers of Beekeepers Supplies
Onsted, Michigan



**Time is money! VOHO PRODUCTS save both. A VOHO SNUFFER for fire prevention and positive smoker control. It's new—It's yours for a dollar. Interested? We will tell you all about it. Write, wire, or come and see us.**

**Voho Products 2916 Orange St. Norfolk 2, Va.**

**G. B. Lewis Wooden Goods!**
**Dadant's World Famous Crimp Wired Foundation. — Their 85 years' experience is your safeguard. Catalogue on request.**

**Dotson's Apiaries**
3059 W. Roxboro Rd., NE
ATLANTA, GEORGIA

**Modern Beekeeping**
The picture magazine of beekeeping. We show you with pictures how to do the job easier, quicker, and better. Special inventor's page.
1 yr., $1.50; 2 yrs., $2.50; 3 yrs., 3.25.
**Modern Beekeeping**
Paducah, Kentucky

**IT'S A GOOD IDEA**

This is the time to gather up all your old comb and cappings and have them rendered into beeswax before the wax moths consume any part of it. We charge only 2c lb. for rendering when your old comb and cappings weigh 100 lbs. or more (net), 3c on smaller shipments. We pay top price for wax.

We are always buying honey. Send SAMPLE, state how much you have and quote your best price. We remit promptly.

Send for our Money Saving Price List on bee supplies.

**THE FRED. W. MUTH CO.**
229 Walnut Street
CINCINNATI 2, OHIO

**Root Service from Chicago**

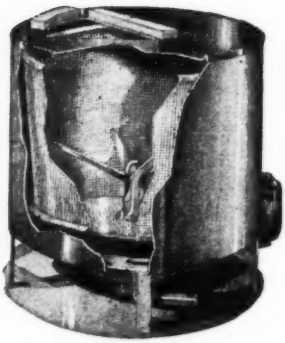
**In Nineteen Forty-Nine**

**Honey Containers**
Plan ahead. Order early the supplies you will need. We have now in stock most of our listed items.

**Beekeepers' Supplies**
Root Quality. The best hives, supers, frames, sections, foundation, all equipment, bees, and literature.
Glass and Tin — Best makes jars, cans, pails, all standard sizes.

**Beeswax**
Good average and Light Yellow. We want it—highest market prices—cash or trade.
Ask for our bee supply price list. Ask for our container price list.

**A. I. Root Co. of Chicago**
224-230 West Huron Street
CHICAGO 10, ILLINOIS



Pat. Applied For

## The Diamond Line Spinner

Would you discard your auto for a horse and buggy, your mechanical refrigerator for an old type ice-box, your electric lights for kerosene lamps? Of course not—no more than you would return to the outmoded, unsanitary cappings drainage box, or "cooker," once your DIAMOND SPINNER is installed! For efficiency and economy it is a MUST. Available now at $225.00 F.O.B. Ship. wt. 200 lbs.

**The Diamond Match Company**
**Apiary Division**
**1300 Produce Street, Los Angeles 21, Calif. or Chico California**
**Send for complete catalogue of beekeepers' supplies**

## Electric Uncapping Knife

This knife heats in 15 seconds and operates with a steady heat regulated by an adjustable thermostat in the handle. No control boxes. New design in plastic handle. 110-115 v. AC only. 6 ft. rubber cord $15.00. Cotton cord $13.50 while they last.

**Macy Electric Knife Company**
**1239 S. Lorena St. Los Angeles 23, California**

**Better Bred Queens** **Three Band Italians**
We thank our many customers for their patronage this season.
We are now booking orders for 1949.
**Calvert Apiaries** **Calvert, Alabama**

## POLLEN

### 100% Pure — Not a Mixture

**When you buy this you get the real stuff, trapped with pollen traps from our own bees.**

Recommended by leading authorities, pollen cakes made with a mixture of pollen, soybean flour, and sugar syrup or honey give excellent results in the rapid building up of package bees and over-wintered colonies.

According to the formula used by the U.S. Bee Culture Laboratory at Madison, Wisconsin, four pounds of dry pollen when properly mixed will make fifty one- pound cakes of pollen supplement. Under normal conditions, three to five cakes are used per colony.

Our pollen is thoroughly dried and fumigated and will keep indefinitely. We strongly recommend that the beekeeper mix his own cakes with real pollen in preference to using some unknown mixture. Directions for mixing included with each shipment.

Orders will be accepted and shipped in the order received. No shipments will be made before March. Order early, as the supply will be limited. Shipment will be by Parcel Post.

**One pound of pure pollen .....$1.30**
**Five pounds of pure pollen ..... 5.75**
**Ten pounds of pure pollen .....10.00**

## Babcock Honey Company

**Box 126, Five Points Sta., Columbia, S. C.**

# Price of Honey

## November 22, 1948

The following figures represent an expression of current prices from beekeepers and honey packers over the country. They are based on several reports from each state averaged with the reports in the region. Where insufficient information is returned, prices have been omitted from the chart. Where three figures appear on the chart the first figure represents the low, the middle figure represents the average, and the third figure the high price.

| | No. Atlantic | South | No. Central | Midwest | West |
|---|---|---|---|---|---|
| **Bulk Honey** | | | | | |
| Table Grade | 10-15c - | 8-12-16c | 9-13-18c | 10-11-12c | 9-10-13c |
| Industrial Grade | 7-11 - | - - | 8-11-15 | 7-9-10 | 6-8-11 |
| **Price to Grocers** | | | | | |
| 5 lb. jar or can | 14-19-25 | 20-24-30 | 14-18-21 | 15-19-35 | - - |
| 3 lb. jar (cs. 12's) | 17-28 - | | | | |
| 2 lb. jar (cs. 12's) | | 23-28 - | - - | - - | 19-22-25 |
| 1 lb. jar (cs. 24's) | 17-26-30 | 25-29-32 | - - | 19-22-25 | 21-23-25 |
| Comb Honey (24's) | $7-$8-$11 | $4-$8.50 | $7-$9.75 | $4.-$7.50 | $8.75 |
| **Retail Price** | | | | | |
| 60 lb. can | 10-15-18 | 15-16 - | 15-18-26 | 13-15-16 | 10-17-25 |
| 5 lb. jar | 20-28-40 | 25-28-35 | 19-24-28 | 14-24-45 | 16-22-30 |
| 3 lb. jar | 26-34-40 | 25-29-33 | | | |
| 2 lb. jar | 25-40 - | 25-30-38 | - - | 23-27-35 | 20-28 - |
| 1 lb. jar | 29-36-45 | 24-34-45 | 27-31-39 | 25-29-37 | 23-30 - |
| **Honey Sales** | **Slow to Fair** | **Fair** | **Fair** | **Slow to Fair** | **Fair** |
| **Estimated Crop** | | | | | |
| Conditions based on normal (%) | 92 | 70 | 76 | 73 | 88 |

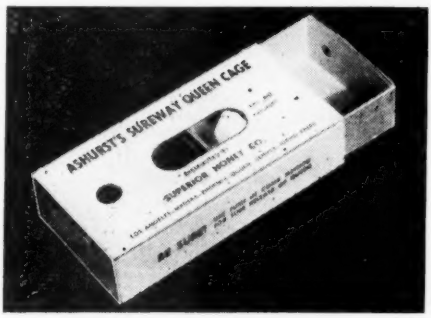
The average prices reported this month compared with those of a month ago show no material change. A few comments from beekeepers are as follows:

New York—"Honey is all prices in the stores. No one price."

Colorado—"Most producers holding for 12c bulk price."

Nebraska—"Very little table grade offered. Too much industrial grade. Too little repeat orders. When table grade is offered it moves well."

The general commodity market price as reported in the Journal of Commerce for some 30 sensitive commodities stands at 277 as compared with 282 a month ago. 1938 is figured at 100.


**You Can Be SURE**

**If It's "Sureway"**

**A New "Sureway" of Introducing Queens**

Mr. Allen Dyer, one of California's outstanding commercial beekeepers, says:

"I have been using your "Sureway" cages for queens for the past two years. I would like to express my complete satisfaction with these cages. I have found that the queens remain in better condition and that I get almost 100% acceptance with this cage which is much better than I ever got with wooden cages. The better acceptance eliminates a great deal of checking back and saves time.

"This cage does not spoil the combs when it is removed. The construction also saves time inasmuch as the queen has access to the cells and is usually laying within 24 hours from the time she is caged.

"I have used 2500 of these cages to date (in the past two seasons) and can strongly recommend them to any beekeeper."

Allen Dyer

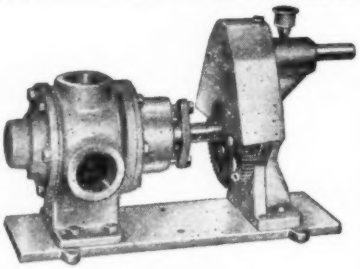
Insist that your queens be sent in "Sureway" cages and get 99 to 100 percent acceptance—no need to return to the hive to remove the cage—the bees do it. Write for free sample.

**5201 District Blvd.**

**Superior Honey Company Los Angeles 22, California**




B & Z Library



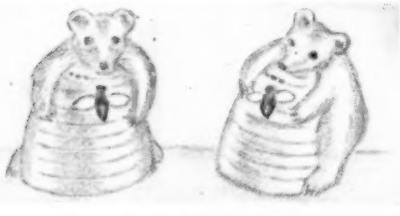
This vane type pump for 1¼" pipe will lift honey at a speed as low as 50 r.p.m. Does not churn minute air bubbles into your honey. Keeps it clear as crystal.

**Manufacturers of Honey Extractors and Equipment**

Ten different sizes and styles to cover the field of requirements from the smallest to the largest honey producers. All prices as to capacity and performance.

Contact your Woodman Dealer or write direct for our illustrated booklet and list of some 350 beekeeping items.

**A. G. Woodman Co.**
**Grand Rapids 4, Michigan**



**SALT AND PEPPER SET**
A pair of pert little cubs with honey skeps. Artistically made. Also ideal for paperweights, displays, desk, or home ornaments.
**1 pair $1.00; 2 pairs $1.80; 3 pairs $2.40. Postpaid.**
Write for wholesale prices
**Tontz Honey Farms Elsinore, Calif.**

Canada's
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for Beekeepers
**Canadian Bee Journal**
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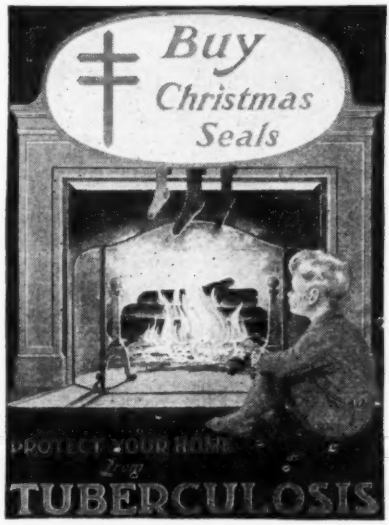
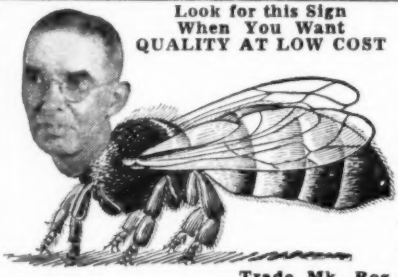
U. S. Subscription Price,
only $1.25 per year.




**Look for this Sign When You Want QUALITY AT LOW COST**



Trade Mk. Reg. U. S. Pat. Off.
KELLEY — "The Bee Man"

**GREETINGS**

We wish to extend to our many customers and friends the most cordial and best of the Season's Greetings and we trust the New Year will be filled with Success and Happiness.

When your thoughts again turn to bees, write us about your needs. We have a large stock of all items and are anxious to quote you.

**The Walter T. Kelley Co. Paducah, Ky.**

**SERVICE**
**from**
**SYRACUSE**

**ROOT "QUALITY" BEEKEEPERS' SUPPLIES:**
Materials are still scarce. Order your bee supplies now, or send us a list of your requirements. We will advise you and quote prices when available.

**HONEY CONTAINERS:**
Complete stocks at all times —standard honey jars, tin cans, and pails.

**BEESWAX**
With new equipment for rendering old combs and cappings, we get all the wax there is—at reasonable rates. Highest market prices paid for wax — Cash or trade. Shipping tags sent on request.

**A. I. Root Co. of Syracuse**
1112-14 Erie Blvd., East
Syracuse 3, N. Y.
Serves You Best

**Indiana Headquarters for Root Bee Supplies**
Saves Time and Money
Send Orders to
**The A. I. Root Co.**
OF INDIANAPOLIS
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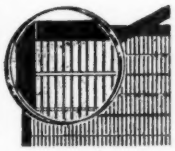
Serving the Honey Producers of America.

To Our
Friends and Customers
We Wish
To Extend
**Holiday Greetings**
and
Our Sincere Appreciation
for
Their Patronage
**August Lotz Co.**
Manufacturers and Dealers
in
Bee Supplies
Boyd Wisconsin

THE ONLY WORTHWHILE
**QUEEN EXCLUDER**
on the market



Chrysler's All Steel Electric Welded Queen Excluder allows maximum bee passage, better ventilation, more honey production. No wood, no sharp edges to injure bees, no burr combs. So durably made and accurately spaced that it is permanently Queen excluding and will last a life time. Sales increasing steadily each year. For earliest delivery place your order at once. Send for circular E-2.

**W. A. CHRYSLER & SON**
Chatham - Ontario - Canada

Protect your future. Buy your extra Savings Bonds now.



XUM

# Package Bees and Nuclei

## 1949 Prices

**"You can pay less but you won't get the best"**

| | Queens | 2 lb. with queen | 3 lb. with queen |
|---|---|---|---|
| 1-24 | $1.40 | $4.50 | $5.60 |
| 25-99 | 1.30 | 4.25 | 5.30 |
| 100-up | 1.20 | 4.00 | 5.00 |

**Four Frame Nuclei**

**Two, four, six, or ten nuclei $7.50 each**
**Over ten nuclei 7.20 each**

We guarantee our combless packages and nuclei to give complete satisfaction in every respect. All shipments are accompanied by a certificate of inspection and are guaranteed to be disease free. Live delivery and shipment on date booked are assured.

Our nuclei consist of four combs containing brood, honey and pollen, and two lbs. of bees with a laying queen. All nuclei are shipped in lots of two or multiples of two, and are crated two nuclei in a single ten frame hive body, partitioned in the middle and screened top and bottom.

One third down books order and choice of shipping dates; balance due ten days before shipment. Order may be cancelled any time before shipping date with refund in full.

**Shipments begin April 1st and continue through May**

## Babcock Honey Company

**P. O. Box 126 Columbia 5, S. C.**